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Voyager

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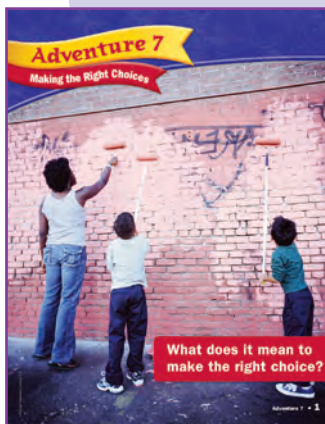
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Voyager Passport™ F

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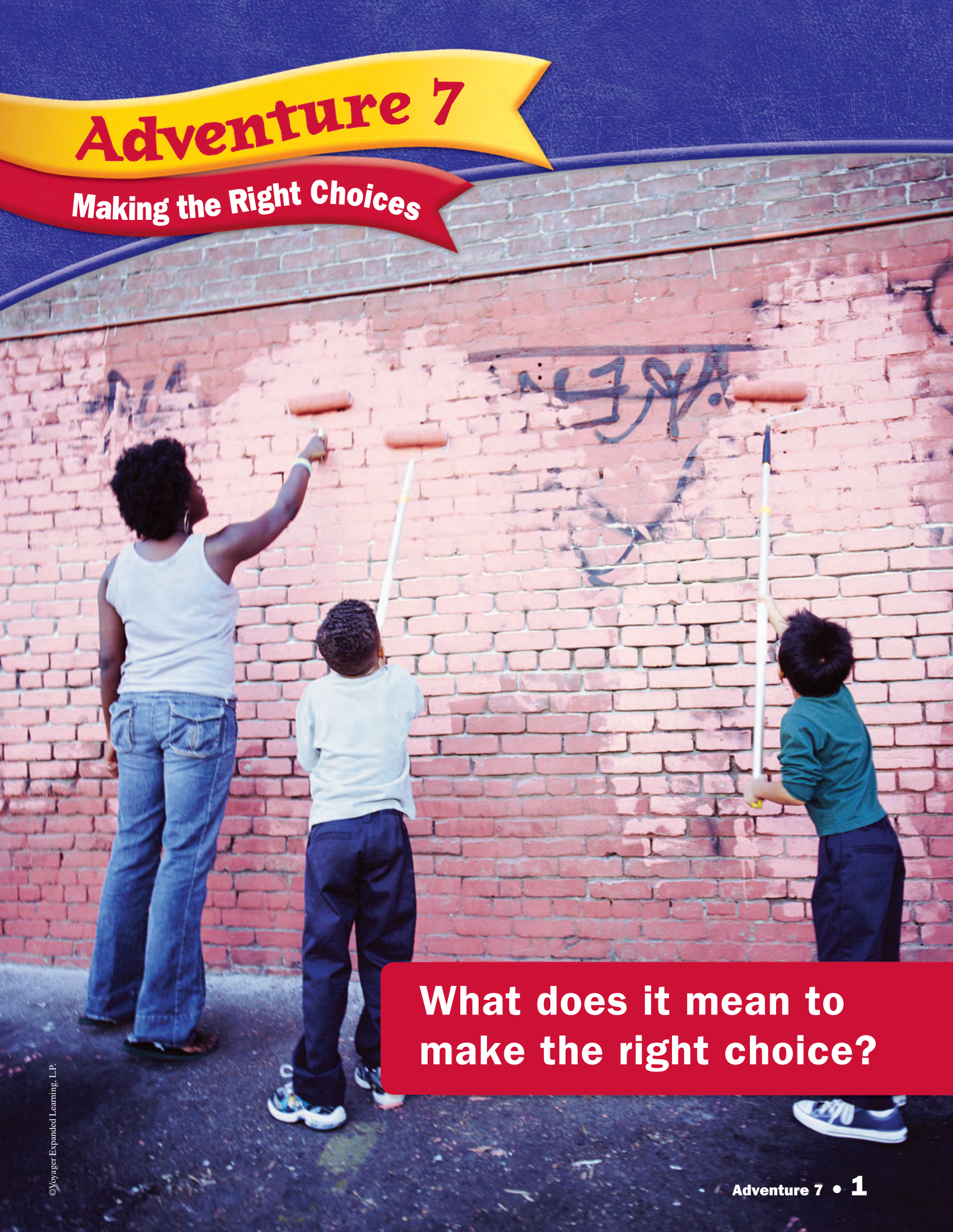
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Adventure 7

Making the Right Choices

A woman and two young boys are painting a large brick wall. The woman, on the left, is wearing a white tank top and blue jeans, and is using a roller to paint a section of the wall. The boy in the middle is wearing a light blue shirt and dark pants, also using a roller. The boy on the right is wearing a green shirt and dark pants, and is using a roller. The wall is made of red bricks and has some graffiti on it. The scene is set outdoors on a paved surface.

What does it mean to
make the right choice?

Cape Coalwood

By Rivka Diamond

Big Dreams of Space

In 1957, six teenagers from Coalwood, West Virginia, watched as Russia launched its first satellite, *Sputnik*, into space on a rocket. Moved by *Sputnik*'s success, the boys formed a group called the "Big Creek Missile Agency." They wanted to become space engineers and build rockets that would fly into space. It was a **career** unheard of in a small town where many coal miners lived.

Building a Rocket

Using a picture of a rocket from a magazine, they set out to build one. They made a rocket out of flashlights and flash powder. Flash powder makes a bright flash when it explodes. They **launched** the rocket outside the house. It blew up a neighbor's fence! They didn't take any **precautions**, and they were very lucky they were not hurt.

A teacher at their high school learned of the project. She gave them a college science book to study. The boys learned factors that cause a successful flight. A rocket needs a certain shape and must be made of a special metal. The flash powder was not good fuel because rocket fuel has to burn more slowly.

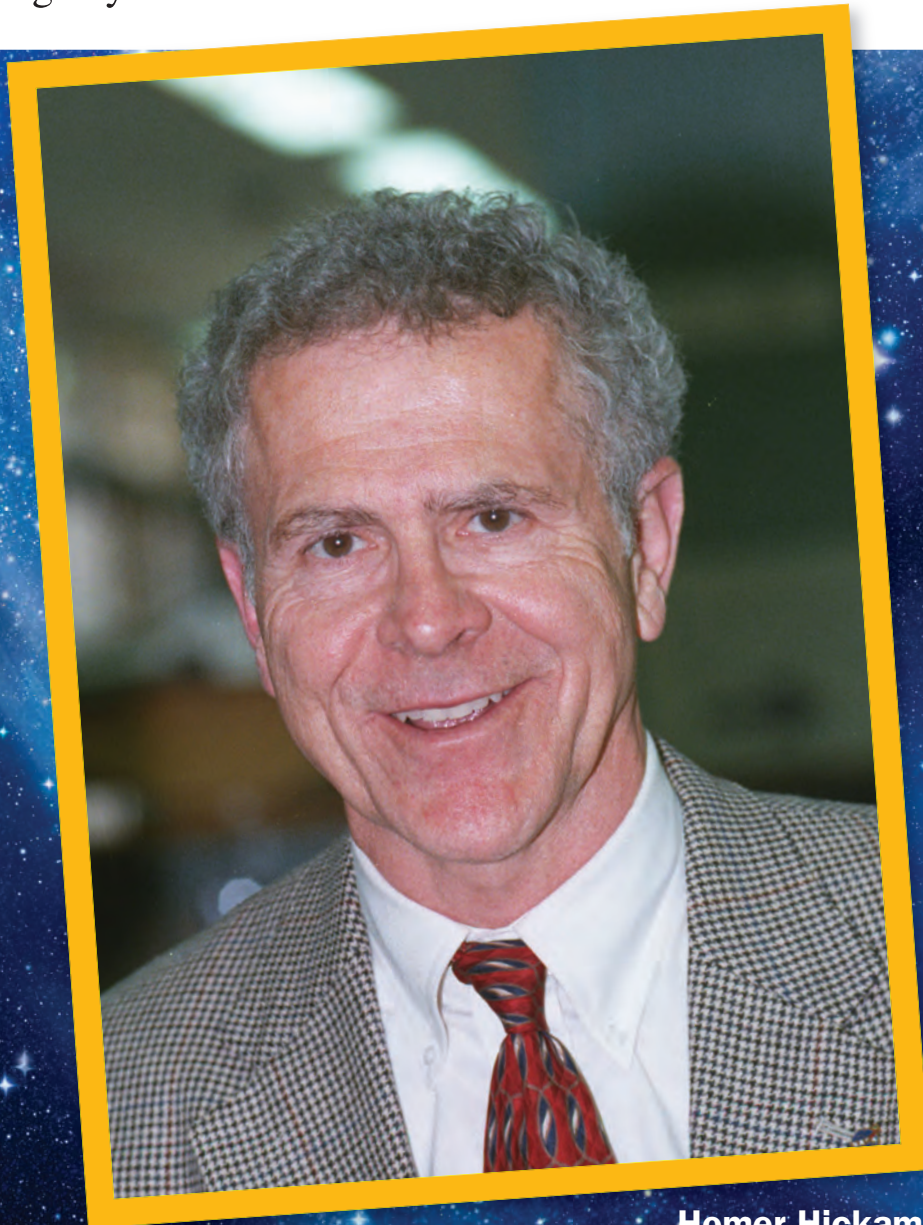
Using what they learned, the boys built rocket after rocket. Every weekend, they tested their rockets behind a coal mine. They worked carefully, **inspecting** every part of the rocket. They watched the rockets in preflight and during flight to learn more. Not all the rockets took off properly. After each failed flight, they made better rockets.



Rocket Boys

In 1960, the boys built a rocket that was 5 feet tall. It was a far cry from the first rocket they had made. About a hundred people from Coalwood watched the launch. The rocket soared 4 miles up into the sky!

All six boys went on to college. They got jobs in different fields. One of them even worked for NASA, helping on space missions. Later in life, he wrote a book about their rocket-building days.



Homer Hickam

Vocabulary Practice

Complete the chart below using the context clues found in the passage “Cape Coalwood.” The first one has been done for you.

Vocabulary Word	Context Clues	Meaning
career	wanted to become space engineers, unheard of in a small town where many coal miners lived	a job that a person follows as a life’s work



A Musical Choice

Kaveri rushed home from school with a bright yellow flyer clutched in her hand. It was very cold outside, so Kaveri ran quickly down the hill to keep warm. She had helped Mr. Jackson paint sets for the school play after class. It was a boring task, but now she had very exciting news. Now, she would finally get the chance to play her own instrument!

What instrument would she choose? Kaveri had listened to her mother talk about playing the trumpet all her life. If she chose the trumpet, she might never be as good as her mother. She didn't like the saxophone, which her father played. She loved the beautiful sound of the violin, but she didn't know if she could learn how to press the strings. Her best friend, Meredith, played the piano. There were so many factors to think about.

Kaveri pushed the front door open and **bounded** inside.

“Mom! I have fantastic news! I can join the school band if I want to,” Kaveri said as she handed the flyer to her mother.

“Oh, Kaveri!” Mom responded, raising her eyebrows.

“This is a hard **decision** to make. It is a lot of **responsibility** to join a band, and it won’t be easy at all.”

“I’m prepared for it, but I just don’t know which instrument to choose,” Kaveri said.

“I remember how you loved seeing the **orchestra** play,” replied Kaveri’s mother. “You could play the violin or the flute.”





“I might play the trumpet, like you, or maybe I’ll play the clarinet,” said Kaveri. “I might even want to play the drums!” A year ago, trying out for the band would have terrified her, but she was more confident now.

“No matter what you play, you will have to take good care of your instrument.”

“I know, Mom,” Kaveri said. “I can’t wait to join the band and learn how to play! Maybe after I learn, we could play a duet!” Kaveri said.

Narrative Text Features

Tell how each story element below helps you understand the story better.

Story Element	How It Helps Me Understand
Story Title	
Character(s)	
Setting	
Problem	
Events	
Solution	

Adventure Checkpoint

Quick Check

Write antonyms for the words on the lines provided.

1. slow _____
2. worst _____
3. loud _____
4. asleep _____
5. over _____
6. inside _____
7. none _____
8. high _____

Vocabulary Check

Read the sentences and use the context clues to find the meanings of the vocabulary words. Choose the correct definition for each word, and write the correct letter next to the sentence.

- ___ 1. The boy bounded toward the football and caught it.
- ___ 2. It is important to inspect your bicycle to make sure it is in good working condition.
- ___ 3. Julia likes animals, and she thinks she might enjoy a career as an animal doctor when she gets older.
- A. look at closely B. the job a person does C. leapt forward

Comprehension Check

Reread the “Cape Coalwood” passage. Write three sentences explaining why the rocket boys were a success.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Choosing Not to Eat Meat

By Providenza Grenada

For many people, nothing tastes better than a big, juicy hamburger. Miguel Diaz, though, would prefer a leafy, nonfat salad. He hasn't had a hamburger in more than three years! Teen reporter Julia Connor sat down with Miguel to ask him about the food he eats.

Julia: Hi, Miguel. Why has it been so long since your last hamburger?

Miguel: Well, Julia, I'm a vegetarian. This means I choose not to eat meat. I do not eat steak, chicken, or fish. I don't eat any other animals, either.

Julia: Do you eat milk and eggs? Those come from animals.

Miguel: I eat those things. Some people choose not to **consume** any animal products.





Julia: Wow. Being a vegetarian sounds hard!

Miguel: It can appear hard, but it's not.

Julia: Why did you stop eating meat?

Miguel: I always felt **squeamish** when I looked at meat. I felt bad for the animals that were killed. I stopped eating meat because I love animals.

Julia: Are there other reasons to be a vegetarian?

Miguel: Yes. Some people want to help Earth.

Julia: How can being a vegetarian help Earth?

Miguel: It takes a lot of water and land to grow food for animals. Growing vegetables takes a lot less. So some people think they can stop wasting water by eating vegetables. Other people worry that meat companies pollute Earth with fuel and animal waste.

Julia: Interesting. What do other people think of your eating habits?

Miguel: Some people say being a vegetarian is **nonsense**. They really like meat! My parents worry that this diet won't **sustain** me. But they've never pushed me to stop. If you make sure to get all the vitamins you need, a nonmeat diet is healthy.

Julia: Do you miss meat?

Miguel: No, the thought of saving animals and Earth by sticking to this diet drives away any thoughts of meat.



Vocabulary Practice

Write the correct vocabulary word to complete each sentence.

nonsense

sustain

consume

squeamish

1. If you eat a good meal before a soccer game, it will _____ you during the game.
2. I get very _____ whenever I see a snake.
3. My brother says that boys are better than girls, but I think that is _____.
4. Anita tried to _____ three hamburgers at lunch.

Write a sentence using each of the vocabulary words. If more than one word is listed, use both words in the sentence.

1. nonsense _____

2. squeamish _____

3. sustain, consume _____

Seeing the Trees for the Forest

A World Without Trees

Imagine waking up one morning and discovering that all the trees were gone. What changes would take place as a result? Empty fields would sit where forests had stood. You wouldn't be able to find a shady place to rest in a city park. Even worse, basic wood products would be gone. Paper, toys, buildings, and even toothpaste are made from trees. In a world without trees, you would have no books, no house, and dirty teeth!



The Value of Wood

How does a tree become a stack of newspapers, anyway? It all starts with logging—cutting down trees. In places with lots of trees, like Florida, logging is an important part of life. People use logs to make new buildings, and they use tinder, or dry wood, to heat their homes. Farmers plant crops on the bare land. New villages are built where acres of trees once stood.

Forests in Danger

There is another side to the story. Cutting down too many trees hurts the world. Some animals make their homes in trees. Trees also keep Earth's climate stable, with just the right amount of heat and rain. If forests are destroyed, then the world may become too dry and hot to bear. Some kinds of animals will disappear forever. Unless we do what we can to help tree **conservation** efforts, we may wake up one morning in a world without trees.

Choosing to Be Tree-Friendly

How can you protect trees so that people can enjoy them in the future? Whether you are a logger or a student, you can make a difference. In Florida, people who are **employed** as loggers plant new trees to replace each tree they cut down. You can choose to **recycle** paper or buy recycled paper products. Get your friends and family involved. With your help, trees will **reign** on Earth for many years to come.



Vocabulary Practice

Divide each word into parts. Then write a definition on the line for the whole word.
The first one has been done for you.

recycling = re + cycle + ing

the act of processing things again to save material

1. unemployed = _____

2. reigning = _____

3. villager = _____

4. disappear = _____

5. reappear = _____

Sue Hendrickson, **Dinosaur Discoverer**

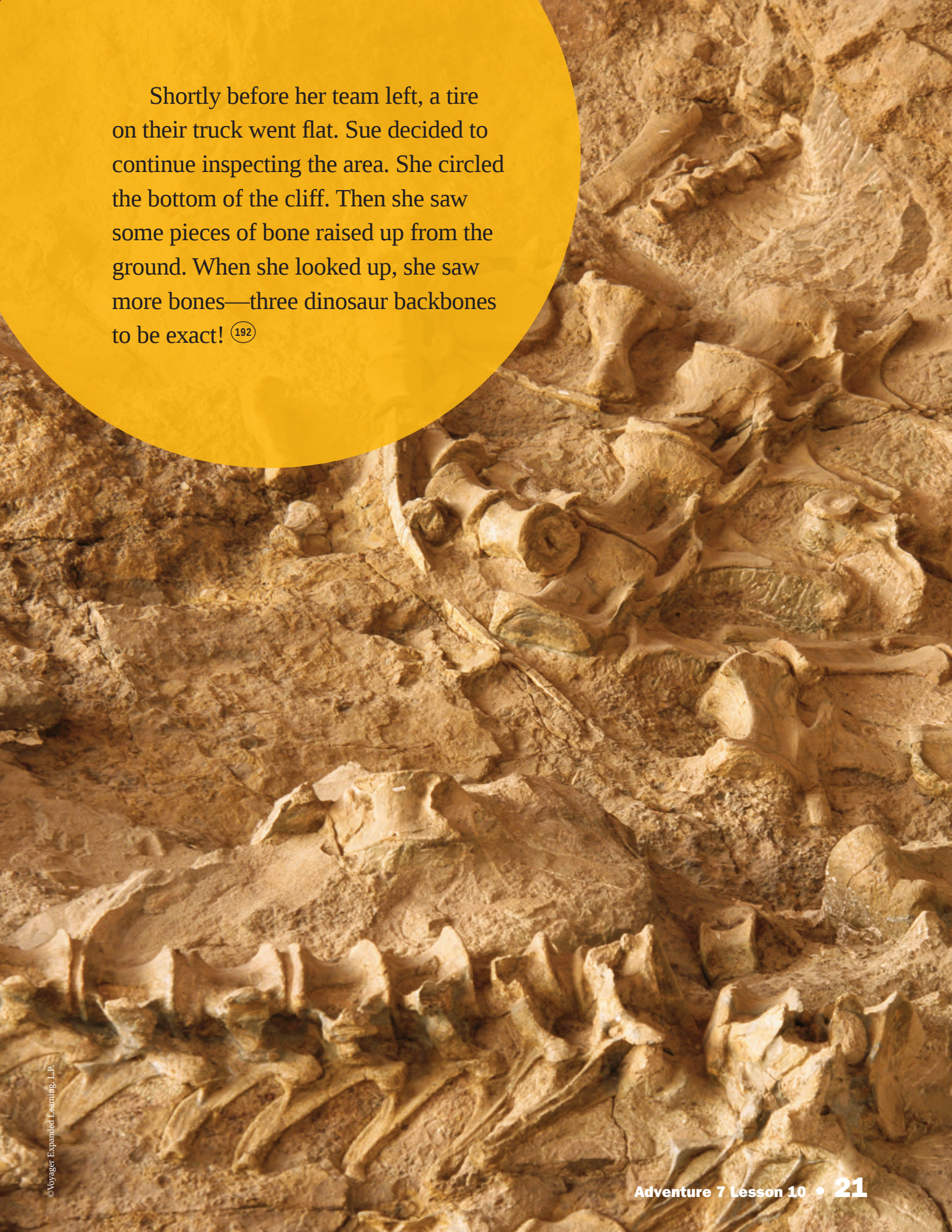
Sue Hendrickson loved to explore the world outside. She often joined friends on digs around the world. They searched for fossils and other treasures. (24)

Sue was introduced to her first fossil in the Dominican Republic. A miner gave her an amber stone. There was a tiny ancient insect inside. She was amazed to see something so old in her hand. It made her want to learn more. (67)

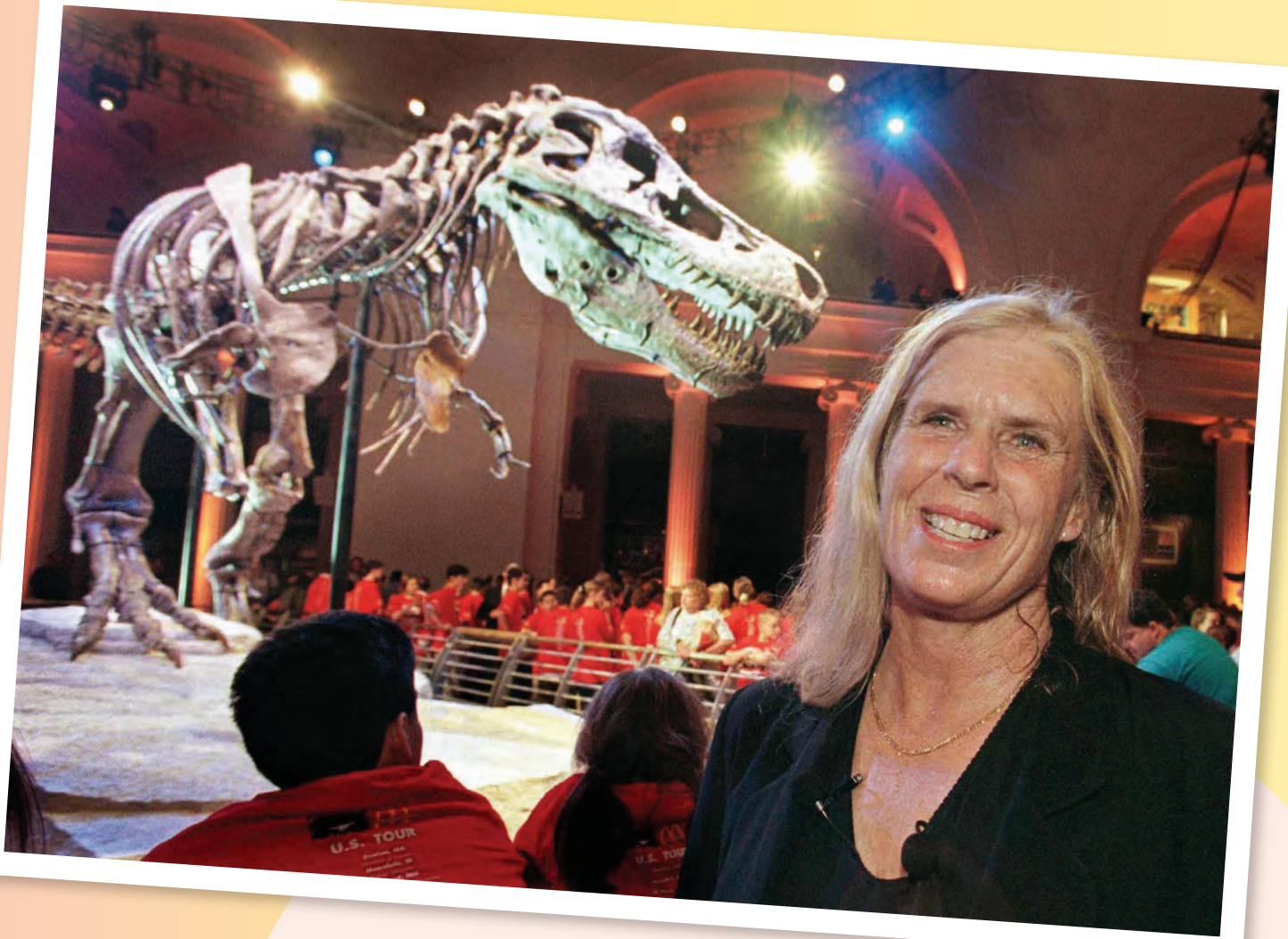
Sue returned to find more amber fossils. She never dug them herself. She would buy them from miners in the local villages. She gave some to museums and schools. She kept some for herself. (101)

After finding whale, seal, and dolphin fossils in Peru, Sue came back to the United States. She worked with friends to find fossils in South Dakota. During the dig of 1990, Sue made a decision. What was her decision? (140)



The background of the page is a detailed photograph of fossilized dinosaur bones embedded in a light-colored, textured rock matrix. The bones are various sizes and shapes, including what appear to be vertebrae and rib fragments, showing the intricate structure of the fossilization process. A large, semi-circular yellow graphic is overlaid on the top left of the image, containing the text.

Shortly before her team left, a tire on their truck went flat. Sue decided to continue inspecting the area. She circled the bottom of the cliff. Then she saw some pieces of bone raised up from the ground. When she looked up, she saw more bones—three dinosaur backbones to be exact! (192)



Sue bounded back to her team to share the news. Then she led them in uncovering the huge fossil. Instead of machines, the diggers used metal shovels, picks, and crowbars. They took precautions to protect the bones. It took almost three weeks to unearth the fossil. It had been stuck in 30 feet of rock. (247)

Scientists worked hard to clean and piece the bones together. The result was amazing! Soon they discovered that the fossil was the

biggest, most complete T. rex ever found! The bones were in great shape. Scientists were able to locate places that once held the dinosaur's muscles. (293)

Sue Hendrickson has made many important discoveries. However, the T. rex reigns as the biggest. It now sits in The Field Museum in Chicago. Its name is SUE, of course! (323)

Words per Minute _____

Adventure Checkpoint

Comprehension Assessment

Read “Sue Hendrickson, Dinosaur Discoverer” to answer the following questions. Circle the best answer. Use complete sentences when answering the in response question.

1. What does a person do on a dig?
 - A. make a space for a museum
 - B. search for fossils or other treasures
 - C. use crowbars to break apart bones
 - D. bury valuable items
2. Why did Sue return to the Dominican Republic?
 - A. She thought the miners were nice.
 - B. She wanted to find more amber fossils.
 - C. She wanted to visit the museum.
 - D. She left her crowbar there.
3. Which of the following fossils were not a part of Sue’s discoveries?
 - A. whale
 - B. seal
 - C. dog
 - D. dolphin
4. Sue decided to keep inspecting the area after _____.
 - A. the tire on the truck went flat
 - B. she heard a noise
 - C. her boss told her to keep looking
 - D. she decided to go for a walk
5. Why did the diggers use picks, shovels, and crowbars to uncover the T. rex?
 - A. Their machines needed batteries.
 - B. They did not want to ruin the fossil.
 - C. They wanted to play in the dirt.
 - D. The machines were too heavy to carry.
6. Why do you think Sue’s discovery was so special?
 - A. She worked really hard.
 - B. It was the strongest T. rex found in the Dominican Republic.
 - C. It was found in South Dakota.
 - D. It was the biggest and most complete T. rex fossil ever found.

Vocabulary Assessment

Read each sentence. Choose the correct answer.

1. If something makes you *squeamish*, you feel _____.
A. excited
B. silly
C. uncomfortable
D. forgetful
2. A synonym for *consume* is _____.
A. die
B. eat
C. give up
D. outfit
3. If you employ someone, you are the _____.
A. boss
B. worker
C. sister
D. coach
4. To a baby who can't read, letters are just _____.
A. reign
B. sustain
C. nonsense
D. discovered
5. Marisol wanted to sustain the baby bird after it fell from its nest. Which word or phrase could be used in place of the underlined text?
A. look at
B. damage
C. ignore
D. keep alive
6. An antonym for *conserve* is _____.
A. grow
B. notice
C. support
D. use up

In Response

Pretend you are writing a story about Sue Hendrickson for your town's newspaper. Write sentences on your paper using facts from the story to describe Sue's discovery of the T. rex.

Adventure 8

Water, Water Everywhere



**What role does water
play in our lives?**

Water Everywhere?

By Juan Gonzalez

The Water Planet

With all the oceans, rivers, and lakes on our planet, it may seem that Earth has an endless supply of drinking water. However, this is

not the case. People cannot use all of this water. Of the two different types of water on Earth, salt water and freshwater, only freshwater is safe for humans to drink.

Salt Water

Salt water is found in oceans. Salt water has a lot of salt and other **substances** that are not safe for humans or animals to consume. It is also not useful for crop **irrigation** or washing.





Freshwater on Land

Freshwater collects when it rains or when snow melts. The water that falls on rocks and soil runs into streams. The streams run together and form rivers. All the land that water runs off is a watershed. Each watershed has a basin, or place where the water **eventually** goes.

Freshwater Underground

There is also water underground. People use wells to bring up this water. It is stored in aquifers, large rocks that hold water. The Florida Aquifer is huge. It stretches into Georgia, South Carolina, and Alabama!



Water Conservation

So how much freshwater is out there? About 3 percent of the water on our planet is freshwater. That's why we should try to conserve as much of it as possible.

Conserving water is not very difficult. In fact, you may already be conserving water. Try some of these ideas to save water:

- Fix leaky pipes! They create gallons of wasted water each day.
- Turn off the water while you brush your teeth.
- Don't pour extra drinking water down the drain. Use it to water a plant or give it to your pet.
- Water your lawn early in the morning or late in the evening. Water will evaporate if the temperature is too warm.
- Start a **discussion** in class about saving water. What ideas do your friends have?

These simple actions will help conserve our planet's freshwater.

Vocabulary Practice

Answer the following questions about the words *irrigation*, *discussion*, and *eventually*.

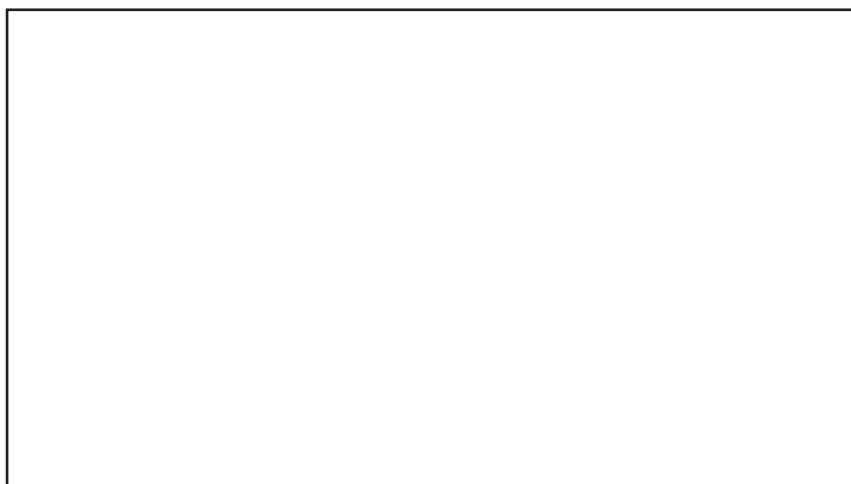
1. Name something you would use for *irrigation*.

2. What might you and a friend have a *discussion* about?

3. Name something you hope to *eventually* finish.

4. Use two of the following words in one sentence: *irrigation*, *eventually*, *discussion*.

5. Draw one of the following in the box: *irrigation*, *discussion*.





Springtime in Florida

Where can you find alligators, manatees, big underground rocks, swimmers, divers, and one billion gallons of water? If you **aren't** sure, try looking for the answer in one of Florida's springs.

What's a Spring?

A spring is a place where water bubbles out of the ground. Florida

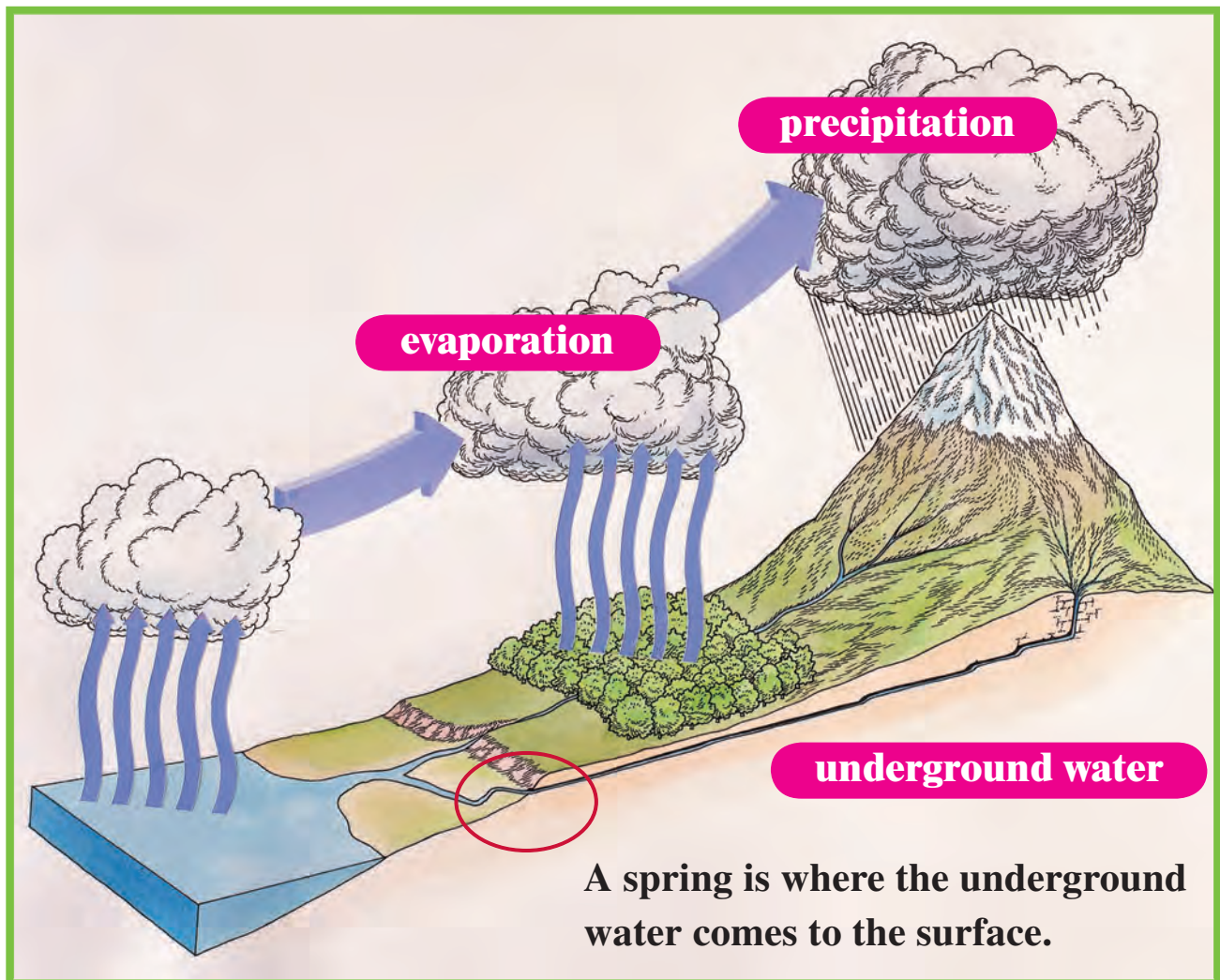
has at least 320 springs. (There may be even more springs we don't know about!) Some springs are just trickles of water. Others form large pools. For example, Wakulla Spring is more than 100 feet deep. On some days, one billion gallons of water come out of the spring. That's enough to fill up nearly 70,000 milk jugs every minute!

From Sky to Ground

Where does all that water come from? It isn't magic. A series of steps brings water to a spring. First, Earth's water is heated by the sun. It **evaporates** and rises into the air. Then it forms into clouds. After a while, it returns to Earth as rain or snow, called **precipitation**. Most water falls into the ocean or onto fields, but some falls on aquifers.

They collect the rain and store it under the ground.

The water that fills Florida's springs comes from as far west as the Gulf of Mexico and as far east as Georgia! It flows in underground rivers through large spaces in the rock. Water doesn't stay within the aquifer forever, though. It flows out through cracks in the rock. That's how springs are formed.



A spring is where the underground water comes to the surface.

Home and Vacation Spot

The springs are full of wildlife. Alligators, turtles, birds, and other types of animals live near Florida's springs. Even manatees visit the warm springs during the winter. You wouldn't believe how **diverse** a spring's animal life can be!

Thousands of people visit Florida's springs every year. Some swim or look for animals. Other people take brief boat trips or camp on the shore of the spring. If you're brave, you can explore underground caves in the aquifer. When you visit a spring, you'll be amazed by the beauty of nature.



Vocabulary Practice

Read the paragraph below. When you come to a blank, fill it in with one of the words in the box.

aren't

precipitation

diverse

evaporate

“What type of experiment should we do?” Corrie asked Rick.

“Well, Mrs. Cox said it should be about water,” said Rick. “Maybe we can test how long it takes water to _____ when you boil it on the stove.”

“Maybe,” said Corrie. “I think that rain is a much more exciting type of water. Could we measure how much _____ we get in the winter and how much we get in the summer?”

“That’s a great idea,” said Rick, “but it will take too long. We _____ supposed to take more than a week for this experiment.”

Just then, Mrs. Cox walked by. “Your ideas are so _____,” she said. “I’m sure you can come together and decide on something soon!”

Adventure Checkpoint

Quick Check

Match the base word in the first column to the word with the suffix *-tion*, *-sion*, or *-ion* in the second column.

Base Word	New Word
select	impression
extend	prediction
possess	selection
suspend	decoration
impress	possession
predict	suspension
decorate	extension

Vocabulary Check

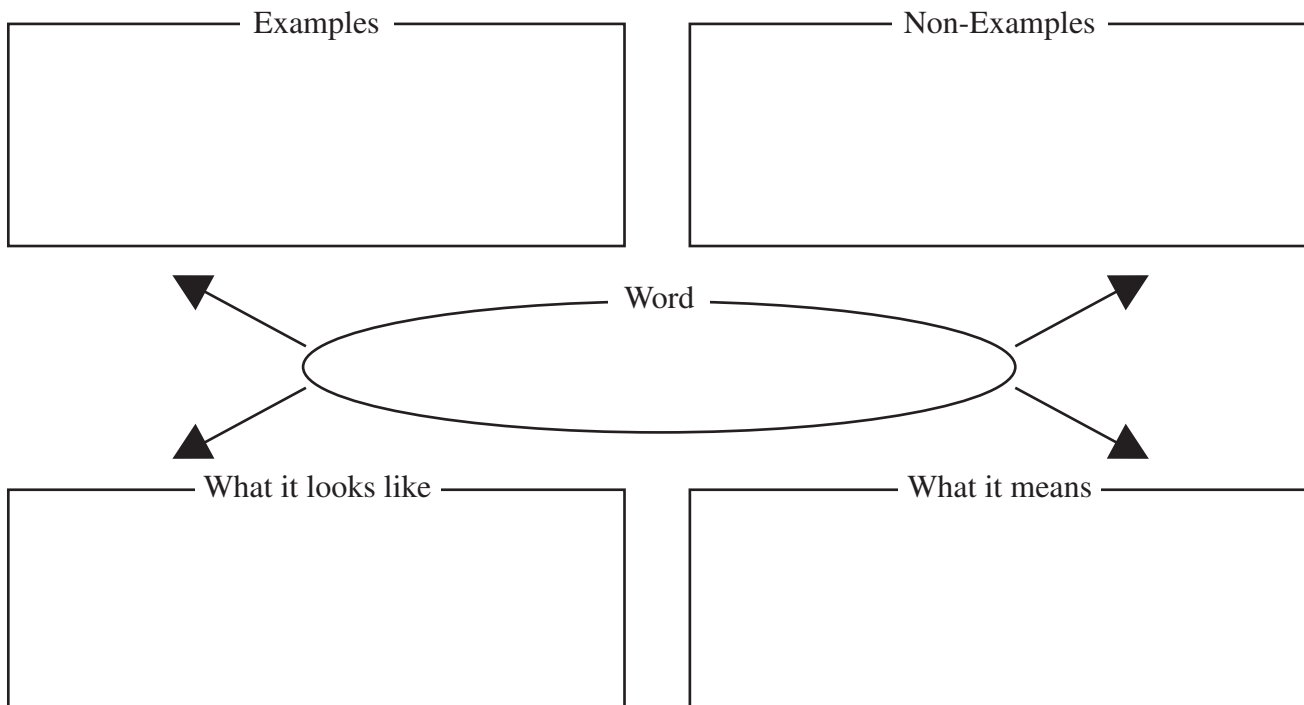
Insert one word from the word box into the oval on the diagram. Then complete the boxes.

irrigation

discussion

evaporate

precipitation



Comprehension Check

Practice using text features. Turn each text feature listed below into a question. Then reread the passage to answer each question.

Heading 1: What's a Spring?

Question: _____

Heading 2: From Sky to Ground

Question: _____

Heading 3: Home and Vacation Spot

Question: _____

An Interview with a Hydrologist

By Jin Chung

Host: Hello! I'm Hector Garcia, and this is the radio show, "Cool Jobs."



Today's guest really knows water. Ask her anything about water and she'll answer as fast as you can say H₂O. Here's Dr. Mindy Watkins, a hydrologist.

Mindy: Hello, Hector. It's nice to be here. Tomorrow, I'll be off to Africa.

Hector: You seem busy, Dr. Watkins.

Mindy: Yes, I am very busy. I just got back from Russia last week.

Hector: Russia? Africa? That's **impressive!**

Mindy: Yes, hydrologists are very active. We get around a lot.

Hector: What is a hydrologist? What do you do?

Mindy: A hydrologist studies the water cycle. We also make extensive studies on soil, plants, and the weather. We say what might happen to them in the future. You see, water affects almost everything on our planet. We also find positive ways to deal with water problems.

Hector: I can't see a problem because most of Earth is water, right?



Mindy: Yes, but it's mostly salt water. We need good **quality** drinking water. People need more than 12 gallons of water every day per person. That's just for drinking, bathing, cooking, and getting rid of waste. We also need water to grow plants and animals, too.

Hector: There's rainwater.

Mindy: Not everywhere. Many people live in or near a desert. They have to pipe in **massive** amounts of water. Water costs a lot for those nations.



Hector: What about water from rivers, lakes, and streams?

Mindy: Much of it is dirty and full of chemical waste.

Hector: So hydrologists think of creative ways to get more water?

Mindy: Yes. We develop **effective** methods of cleaning dirty water. We try to predict floods. We teach people to get rid of waste without harming the rivers and seas. We make sure that the water you drink is safe.

Hector: We should thank you and other hydrologists for every glass of water we drink.

Mindy: That is why I love my job. Besides, what we know about water today may not be the same tomorrow.

Making Inferences

Make two inferences from the passage “An Interview with a Hydrologist,” filling in the charts below.

Information from the Text



What I Already Know



Inference

Inference from the Text



What I Already Know

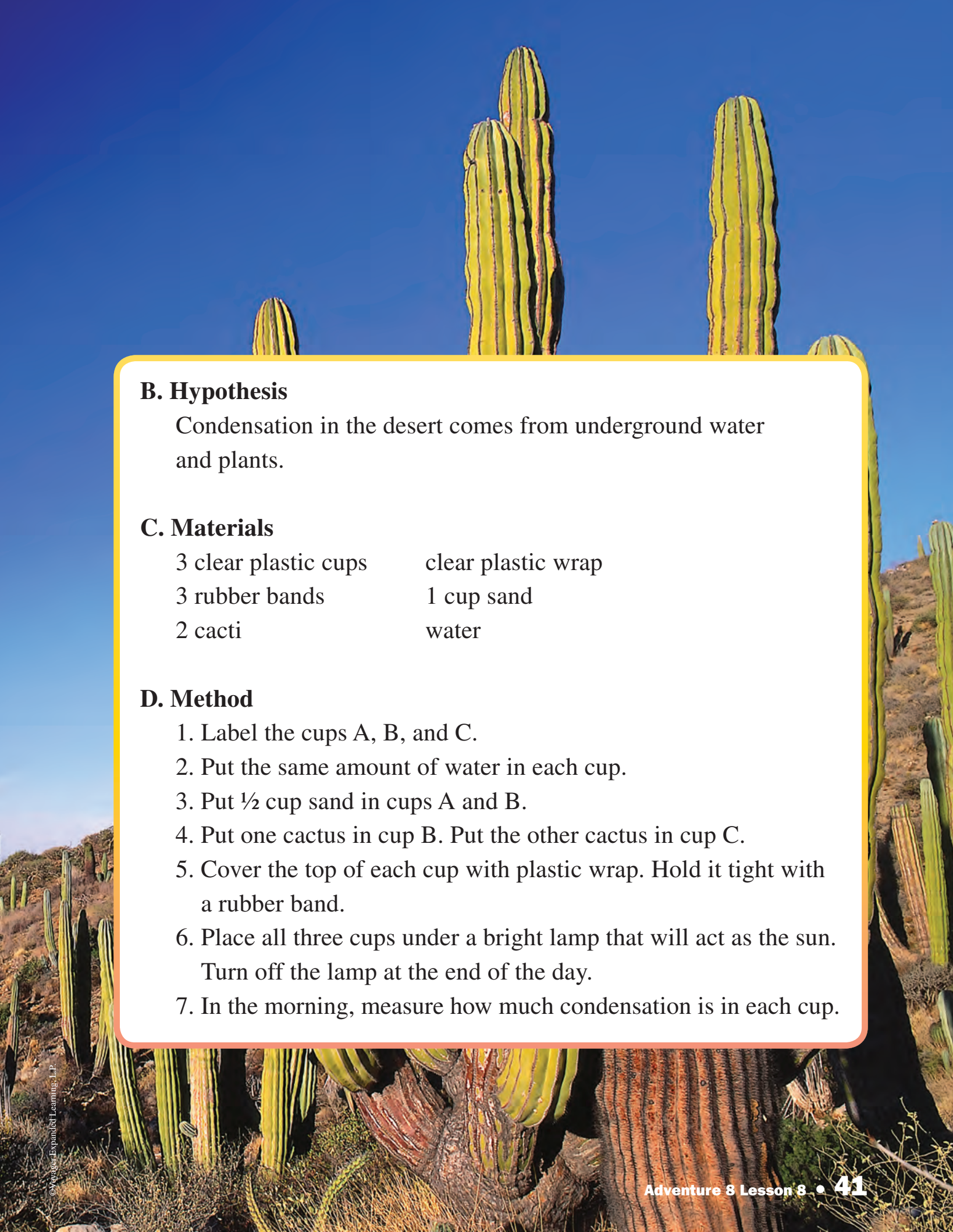


Inference

Water in the Desert

A. Introduction

All deserts have water, if you know where to look. There are plants called cacti with fleshy parts that hold water. Some plant roots reach down to pools of water deep underground. Rainfall can gather in cupped leaves or rocks. If the rainfall or underground pools remain for a long time, groundwater may form. These water sources are great, but they are not easy to get to every day. Condensation is the only way to get water every day in the desert. Condensation is droplets of water. Where does condensation come from in the desert? I plan to gather **information** to show that **condensation** comes from underground water and plants.



B. Hypothesis

Condensation in the desert comes from underground water and plants.

C. Materials

3 clear plastic cups	clear plastic wrap
3 rubber bands	1 cup sand
2 cacti	water

D. Method

1. Label the cups A, B, and C.
2. Put the same amount of water in each cup.
3. Put $\frac{1}{2}$ cup sand in cups A and B.
4. Put one cactus in cup B. Put the other cactus in cup C.
5. Cover the top of each cup with plastic wrap. Hold it tight with a rubber band.
6. Place all three cups under a bright lamp that will act as the sun. Turn off the lamp at the end of the day.
7. In the morning, measure how much condensation is in each cup.

E. Results

Cup	A	B	C
Contents	sand	sand, cactus	cactus
Number of droplets	9	22	13

F. Conclusion

Cup B had the most condensation at the end of the experiment. Cup A had the least condensation. All the cups have some condensation because they had water in them already. These results seem to show that underground water and plants provide condensation. However, the water I added was very close to the top. Within real desert sand, the water may be much further down.

Animals and plants in the desert need water. I think people could use this study to learn about desert irrigation. If cacti help produce condensation, people can use this **knowledge** to collect water.



Checking for Understanding

Circle the letter of the best answer for each question about “Water in the Desert.”

1. Why do the cups all have different things inside?
 - A. to test what has the most hidden water in it
 - B. because some cups are better than others
 - C. to tell the temperature in the desert
 - D. to make sure there is enough water
2. What kind of creatures would be helped the most by condensation?
 - A. large animals like camels
 - B. small desert animals like lizards
 - C. ocean animals
 - D. animals in the rain forest
3. Why does the experiment include a Method section?
 - A. to make it harder to do the experiment
 - B. so that others can read about the experiment
 - C. so other scientists can repeat the experiment
 - D. so other scientists will not copy the experiment
4. What is condensation?
 - A. sheets of ice
 - B. lots of snowflakes
 - C. boiling hot water
 - D. tiny drops of water

Write a new fact that you learned from reading this passage.



H₂O 3015

It's the year 3015, and I live with my mother and my grandmother in Texas, District 340. It's springtime, and because of all the rain, we have to stay inside. During this time of the year, we get a lot of acid precipitation. It can't kill us, but it will stain our clothes and sting our eyes. It is safer to just stay inside our house and tell stories. (69)

My grandmother likes to tell stories about how things were when she was a child. Grandma describes how everyone used to visit the beach. I can't believe people swam in the ocean back then! Today, the water quality near the coast is too bad for swimming. Swimming there can make you quite sick. (122)

Clean water is hard to find now. Fresh food is expensive. Most of our food is created in science labs. It's healthy but it tastes like cardboard. Grandma always complains about it. (154)

Grandma says things were different in her day. People used to raise animals and vegetables to eat. Grandma said neat green rows of plants were common back then. Now, all we have is dry, stubby grass. Tasty plants could not survive the acid rain and the high temperatures. The acid rain has also hurt the soil. (210)

We drink “super-pure” water in small sips. It doesn't taste very pure to me! The water is sort of yellow. It tastes like chemicals. There aren't any other choices, so we have to drink it. We have so little water for drinking that we cannot spare any water to raise animals. (261)





Grandma's stories make me sad. Will my world ever be like it was when she was young? My mother tells me not to worry. She says there are people who are still trying to fix our environment. (298)

The water shortage has changed some things for the better. People have been changing their ways and looking for information. Everyone conserves water. New machines are being created to clean ocean and rainwater through evaporation and other methods. They say that a group of explorers has found a huge ice sheet made of freshwater. We need to conserve the water we have left instead of polluting it. If we make different choices than they did in Grandma's time, maybe we can make the water clean again. (385)

Words per Minute _____

Adventure Checkpoint

Comprehension Assessment

Read “H₂O 3015” to answer the following questions. Circle the letter of the best answer for each question.

1. What is the main idea of the first paragraph?
 - A. We should move to another planet.
 - B. There is acid precipitation in the year 3015.
 - C. Swimming can make you sick.
 - D. We should eat food from labs.
2. What is one difference between Grandma’s times compared to 3015?
 - A. They lived in apartments then.
 - B. They didn’t tell stories then.
 - C. They ate vegetables and animals then.
 - D. They couldn’t swim then.
3. Why did the drinking water taste like chemicals?
 - A. The water had been cleaned.
 - B. The water had been poisoned.
 - C. The water had medicine in it.
 - D. The water was for the plants.
4. Why is food made in labs?
 - A. Fresh food is too expensive.
 - B. People like the lab food a lot.
 - C. The lab food is healthier.
 - D. The plants are grown with chemicals.
5. Why don’t people raise animals to eat?
 - A. They don’t want to hurt animals.
 - B. They don’t like the taste of animals.
 - C. The animals are all dead.
 - D. There is not enough water.
6. Why do you think Grandma tells her stories?
 - A. to distract the family from their hard life
 - B. to upset her family
 - C. to teach her family about how things were
 - D. to pass the time

Vocabulary Assessment

Choose the correct word for each sentence.

aren't condensation quality information precipitation evaporate

1. I need more _____ to answer your question.
2. Tiny drops of water formed on my soda can from _____.
3. My friends _____ going to drive cross-country without a new car.
4. Mariko says the _____ of the apple is good.
5. Beans will not grow where there is no _____.
6. It would take years for that pond to _____.

In Response

Use the facts and details from “H₂O 3015,” along with what you already know, to answer these questions.

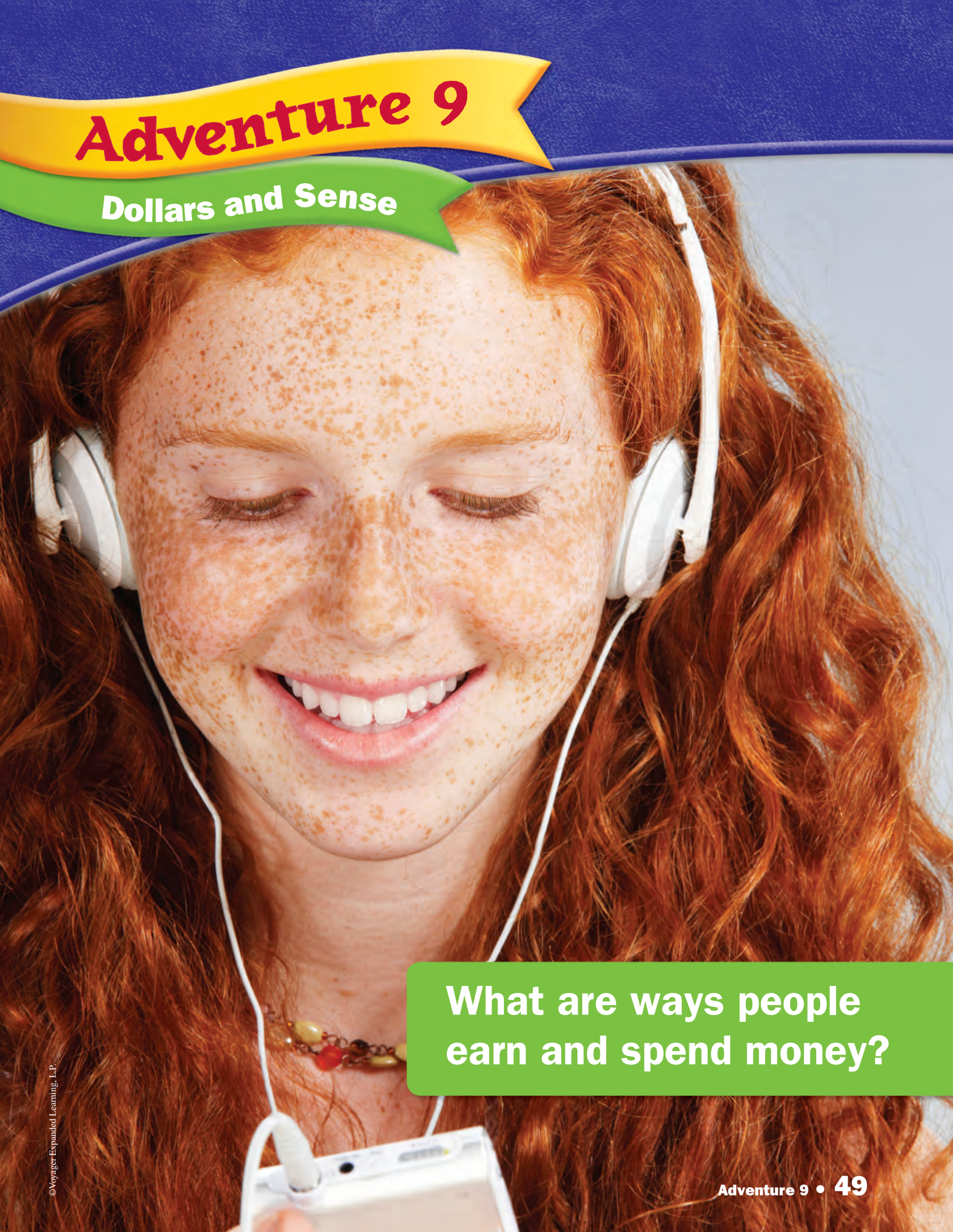
1. Why is water important for life on Earth? _____

2. What could we do to prevent this story from happening? _____

3. What do you think life on Earth will be like a thousand years from now? _____

Adventure 9

Dollars and Sense



What are ways people
earn and spend money?

A Short History of the MP3 Player

By Davon Meyers



Do you like to listen to music for entertainment? Many people do. If you lived long ago, you would not have had **recorded** music. If you wanted to hear music, you had to play it yourself or go to a concert.

Recorded Music

The first sounds were recorded in 1877. That is when Thomas Edison **invented** the phonograph. Over the years, people invented new ways to record and listen to music. People heard music on records, tapes, and compact discs. Machines were needed to play the music. They all had moving parts. This meant they were **breakable**. Plus, most players were large. This made them **difficult** to carry.



A New Invention

Think about listening to music using something that was built to fit in the palm of your hand. You are able to take it anywhere. This **amazing** machine is called an MP3 player. Work on the MP3 player started in Germany in 1987. It was not sold in the United States until 1996. It took three more years before the players were small and easy to carry. Another nice thing about the MP3 player is that it does not have moving parts. That helps to make it last a long time.

The MP3 player stores any music you like. You record songs from a computer. The

player compresses each song. To compress a song means to make it as small as possible. Think about a balloon. A balloon with air takes up a lot of room. When you let the air out, the balloon is small. To compress a song is like letting the air out of a balloon. Because each song is compressed, an MP3 player can store a lot of songs. Part of each MP3 player is its memory. The memory is where the songs are stored. Some players have a memory that can store hundreds of songs. Others have a memory so big they can store thousands of songs!

A Playlist

One of the best things about an MP3 player is that you can make your own playlist. You get to choose the music you want to listen to. You can put the songs in any order you like.



Generating Questions

Write questions about the passage “A Short History of the MP3 Player” using the 5 *W*’s and the *H*. Then have a partner answer your question.

Who

Question: _____

Answer: _____

What

Question: _____

Answer: _____

When

Question: _____

Answer: _____

Where

Question: _____

Answer: _____

Why

Question: _____

Answer: _____

How

Question: _____

Answer: _____

Sponges from the Sea

By Michael Zang



What do you do if you spill milk? You might use a sponge to clean it up. Most sponges are made in factories. Long ago, all sponges came from the sea.

What Is a Sponge?

Sponges are living things. They are animals. There are more than 9,000 kinds of sponges. Only one

type of sponge lives in freshwater. The rest live in salt water. Some sponges live alone. Others live in groups. Sponges come in lots of shapes and colors. Adult sponges attach to things like rocks, coral, and shells. Sponges show little movement. That is why people used to think that they were plants.

How Are Sponges Used?

Some sea sponges can hold water. Long ago, people in Greece used them when bathing. Soldiers from Rome drank water from them. Today, some people still use sea sponges for bathing. Other sponges are **lovely** to look at. These are **ornamental**.

How Do We Get Sponges?

Fishers in Florida discovered sponges there in the early 1800s. Storms had washed the sponges onto a beach. The fishers sold the sponges. In 1849, the fishers sent sponges to

New York. The sponges sold quickly.

Soon lots of fishers wanted to sell sponges. They went out in small boats. The water was **shallow**, clear, and calm. This made the sponges easy to see. The fishers had a long pole with a hook. They used it to grab the sponges. Then they **removed** the sponges from the water.

Before World War II, fishers in Florida sold about 600,000 pounds of sponges each year. As time passed, there were fewer sponges. Fishers took too many sponges from the sea. Also, disease caused a lot of sponges to die.





What Is Sponge Diving Like Today?

Today, fishers in Florida are more **responsible**. They sell only about 60,000 pounds of sponges each year. They go to deeper waters to find sponges. They go diving in special suits. Many divers try to take better care of the sponges. They use a knife to cut off the sponges. By doing this, they hope a new sponge will grow where the old one was.

Homographs

Use complete sentences to answer the following questions. Be sure to include the underlined homograph in your answer.

1. What could die if you do not give it enough water?

2. What kind of material could you cut with a die?

3. What kind of things could you put in a box?

4. How does a person box?

5. Who would wear a ring on their finger?

6. If an athlete steps into a ring to play, what type of shape is that?

7. What type of bat do you use to hit a ball?

8. Where do bats stay during the day?

9. Why do windows have clear glass?

10. How do you clear the board?

11. When do you take a break?

12. How could you break a glass?

Adventure Checkpoint

Quick Check

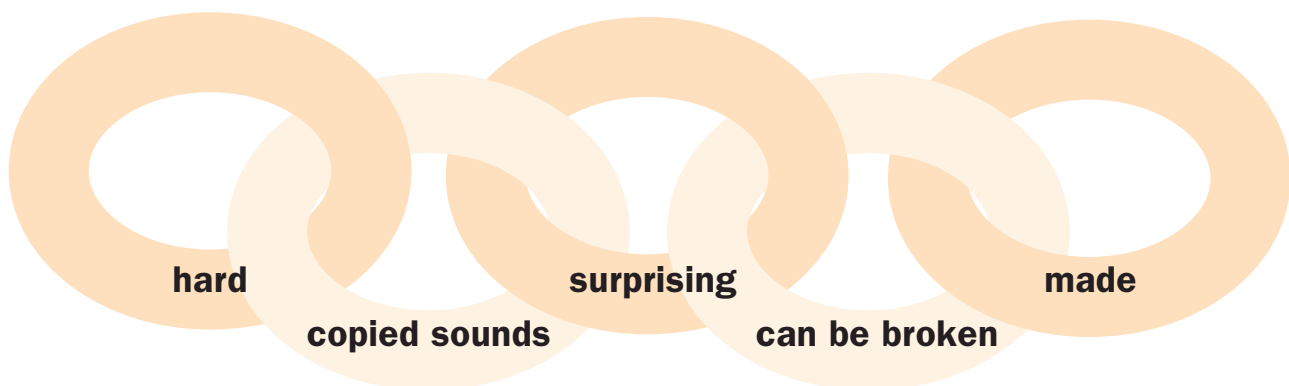
Complete each sentence using one of the words with the suffix *-able* given at the end of the sentence.

1. The _____ new student made friends easily. (usable, likable)
2. The twins wanted to find a _____ solution to their problem. (breakable, workable)
3. The dog looked very _____ curled up in front of the fireplace. (comfortable, usable)
4. When Mr. Lee moved, he wrapped all of his _____ dishes with newspaper. (breakable, comfortable)
5. The old bridge was falling apart, so it was no longer _____. (likable, usable)

Vocabulary Check

Write each word in the box below on the link of chain that shows its definition.

recorded invented breakable difficult amazing



Comprehension Check

Reread “A Short History of the MP3 Player.” Then use the information in the passage and the W–I–N strategy to determine the main idea for each section.

Section	W	I	N
“Recorded Music”			
“A New Invention”			
“A Playlist”			



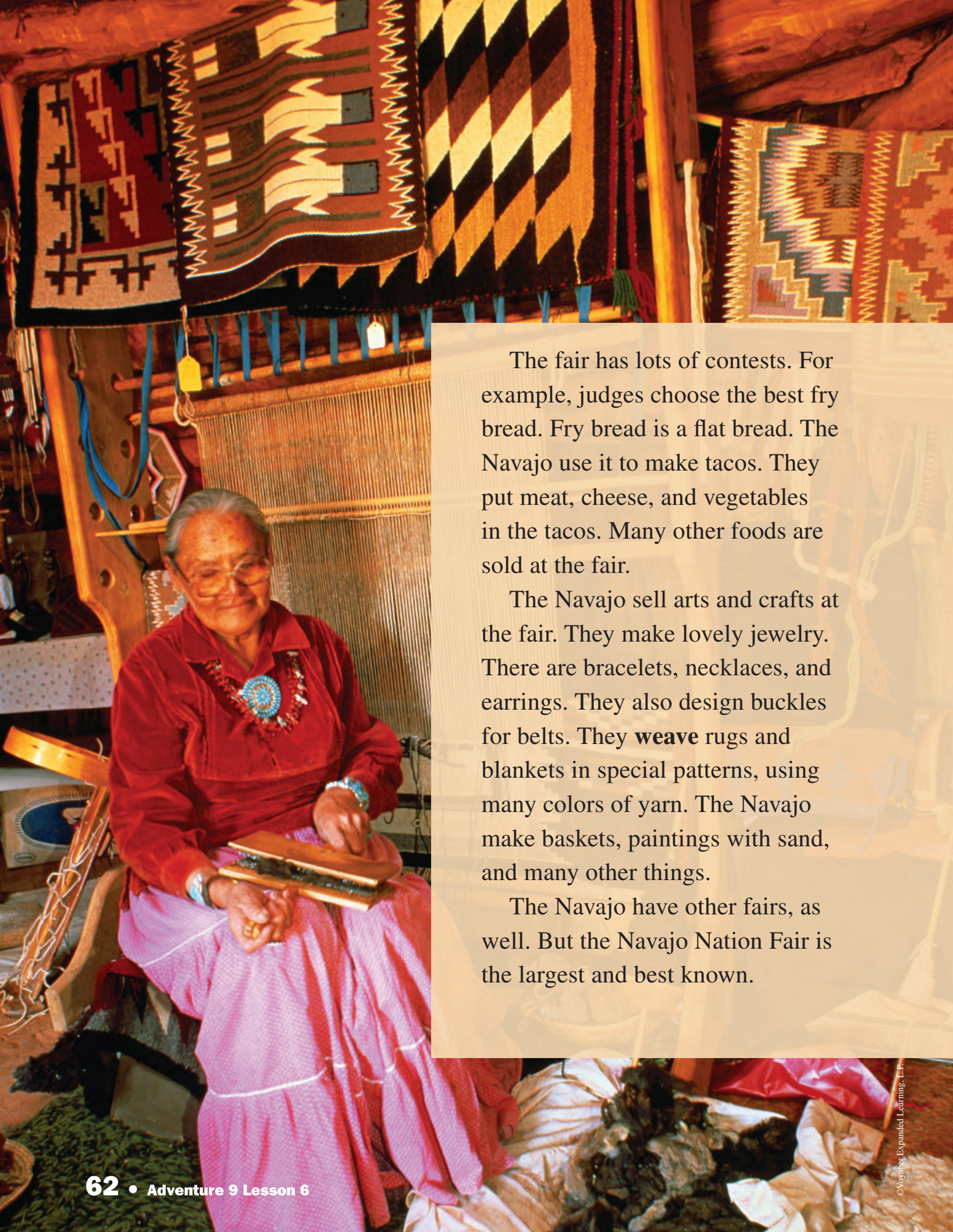
Navajo Nation Fair

The United States is a land with people from many cultures. The Navajo are Native Americans. In North America, they are the tribe with the most members. They have their own culture. They want to keep their culture alive. One way they do this is through their the Navajo Nation Fair. The events at this **famous** fair teach young Navajo about their people's past. It also tells about their traditions. These are the old ways of doing things.



The first fair was held in 1946. It was **developed** because the Navajo wanted to show they were proud of their culture. The fair is still held today. It takes place in the fall each year. It lasts for six days. It is held in Window Rock, Arizona. This is the capital of the Navajo Nation. More than 60,000 people come to this **enjoyable** fair. They come from all over the world.

There are many fun things to do and see at the fair. The Navajo dress in garments like their ancestors did long ago. They have a powwow. This is where they sing and dance for hours. In some events, people show plants and animals they have **raised**. There is also a rodeo. It is for cowboys and cowgirls. They ride horses and rope cows in the rodeo.



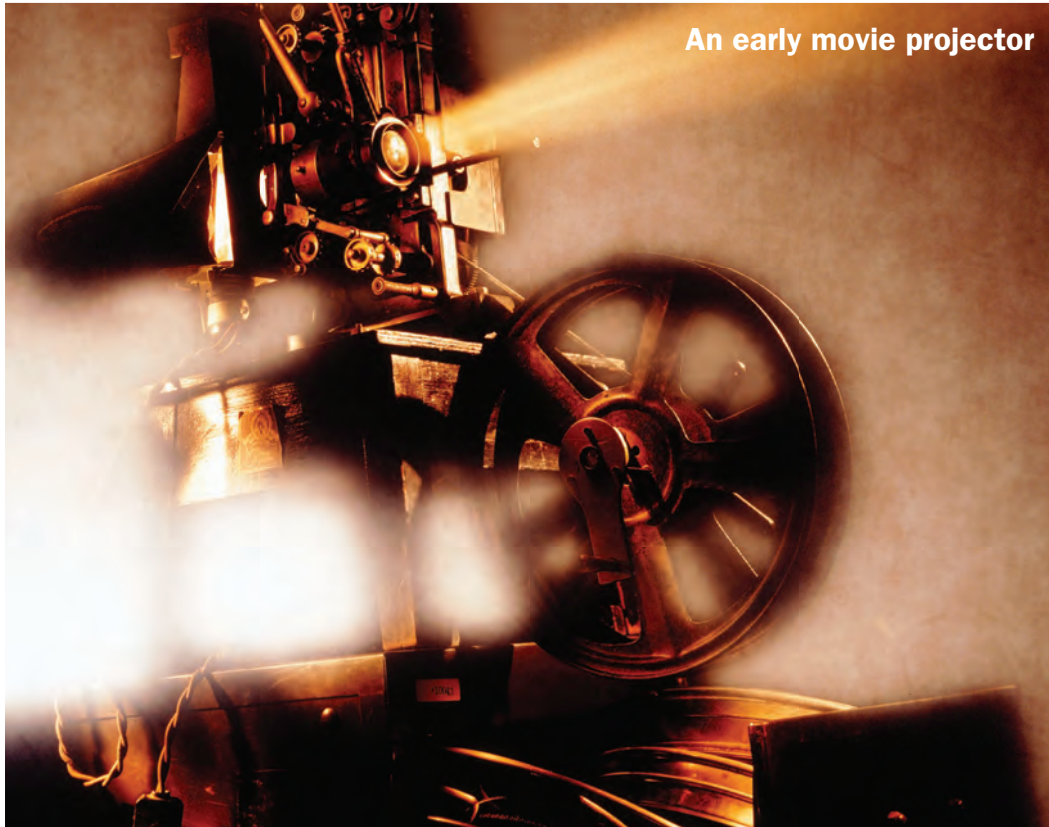
The fair has lots of contests. For example, judges choose the best fry bread. Fry bread is a flat bread. The Navajo use it to make tacos. They put meat, cheese, and vegetables in the tacos. Many other foods are sold at the fair.

The Navajo sell arts and crafts at the fair. They make lovely jewelry. There are bracelets, necklaces, and earrings. They also design buckles for belts. They **weave** rugs and blankets in special patterns, using many colors of yarn. The Navajo make baskets, paintings with sand, and many other things.

The Navajo have other fairs, as well. But the Navajo Nation Fair is the largest and best known.

Retelling

Read Paragraphs 4–6 of “Navajo Nation Fair.” Then, complete the chart below to retell the events of the fair.



An early movie projector

Making Movie Magic

Long ago people did not have movies or TV. For fun, they watched live shows. Sometimes they would go to fairs. There they would watch things like clowns, dancing, and magic tricks.

The First Movies

In the 1890s, Thomas Edison invented a movie machine. He

learned to make films. He sold the machines and films. People put a coin in a machine. Then they would watch the film. The film could only be seen by one person at a time. A few years later, the Lumière brothers made a new machine. This **projected** the film onto a flat surface. Soon people paid to come watch the movie in a theater.

How Movies Got Better

The movies before 1915 were short. This is why they were called “shorts.” Shorts lasted from one to fifteen minutes. These films were about lots of things. Some were cartoons and stories. Others covered the news and sports. After 1915, there were **feature** films. These were longer. They were more like plays. They had famous actors. The shorts were shown along with the feature film. This way, the theater owners could charge more

money for tickets.

At first, theater owners bought the films they showed. They made a lot of money by selling tickets. The producers are the people who made the films. They did not make much money because they could only sell each film one time. Soon, the producers started **renting** films. They discovered that they could rent the film lots of times. This way they made more money. As they **collected** more money, they made better films.





Hollywood

Hollywood is in California. It has a warm climate with a lot of good places to film movies. By 1913, it was one of the main places in the United States where movies were made. In 1947, the first TV station was built there. Today, many

movie producers and stars still like living and working in Hollywood.

People spend a lot of time watching movies and TV. The more people watch movies and TV shows, the more money can be made from these forms of entertainment.

Fix-Up Strategies

There are many things that can help you better understand what you read. Answer the following questions about “Making Movie Magic.”

1. What did you learn by reading the title of this passage? _____

2. What did you learn by reading the headings? _____

3. What did you learn by looking at the pictures? _____

4. If you did not understand something you read in this passage, what would you do? _____

Today's Transportation

The way we move people and goods is called transportation. Cars, trucks, buses, trains, boats, and planes are all forms of transportation. Goods are things people buy and sell. Our country's economy is how the United States manages its money. This is affected by how well we move people and goods. (51)

Working in Transportation

Millions of people find jobs in the transportation industry. There are many types of jobs. Some people build things like cars, planes, ships, or trains. Others make sure planes, trains, ships, or cars travel safely. (86)





On the Move

A transportation system must work quickly and easily. Think of all the problems there would be if people and goods could not travel from place to place. To keep the system working well, new roads, train tracks, ports, and runways have to be built. What about the old roads, train tracks, ports, and runways? Those things must be fixed so we can continue to use them. If they cannot be fixed, they must be replaced. All of this is expensive. Sometimes the government helps build the things we need for our transportation system. (179)

Freight

When goods are moved, they are called freight. Freight must go from where it is made to where it will be sold. Some freight must be moved a long way. It can be transferred by truck, train, ship, or plane. Not much freight is moved by plane. This is because it costs too much. Trucks and trains move a lot of freight over land. Trains are slower, but they cost less. Ships are the cheapest way to move freight. They carry freight across bodies of water. They go from port to port. Ships are slow, but they can move large amounts of freight for the least amount of money. (288)

More About Transportation

When goods and people need to be moved short distances, we often use cars, buses, and trains. Some people prefer to ride a bicycle or walk as a way to get around. All forms of transportation are important, and we depend on them. We have to be able to get to work or school. We have to be able to get to a store for things we need or want to buy. The things we buy would not be at the store if we did not have transportation. The more it costs to get the goods to the store, the more we have to pay for those goods. (396)

The next time you need to go from one place to another, think about how transportation affects your life. (415)

Words per Minute _____



Adventure Checkpoint

Comprehension Assessment

1. Which of the following is not a way of transportation mentioned in the passage?
 - A. planes
 - B. cars
 - C. subways
 - D. trains
2. According to the passage, what happens to roads, train tracks, ports, and runways when they get old?
 - A. They are not used any more.
 - B. They must be fixed or replaced.
 - C. New ones are built in their place.
 - D. They stay the same.
3. What is the word for goods that are being moved?
 - A. shipping
 - B. boxes
 - C. transportation
 - D. freight
4. What is the fastest way to move freight?
 - A. ships
 - B. trains
 - C. planes
 - D. trucks
5. Why isn't much freight moved by planes?
 - A. It is expensive.
 - B. Planes are too slow.
 - C. The freight is too heavy.
 - D. The planes need to carry people.
6. What is the cheapest way to carry freight?
 - A. buses
 - B. cars
 - C. planes
 - D. ships

Vocabulary Assessment

1. Which word is a synonym for *enjoyable*?
 - A. motion
 - B. silly
 - C. perform
 - D. fun
2. Which sentence uses the underlined word correctly?
 - A. I projected to be a movie star by wearing big sunglasses.
 - B. The ships projected their ports when they sailed.
 - C. My teacher projected our lesson onto the screen so we could see the words.
 - D. My parents projected when they relaxed at home.
3. Which words mean the same as *renting*?
 - A. buying at full price
 - B. using for a while
 - C. keeping forever
 - D. buying on sale
4. Which of the following could not be *collected*?
 - A. pennies for a donation
 - B. cans for recycling
 - C. old clothes for a sale
 - D. germs on a doorknob
5. Which words mean the same as *famous*?
 - A. well known
 - B. well liked
 - C. well done
 - D. well said
6. What is a synonym for *developed*?
 - A. tried
 - B. shipped
 - C. invented
 - D. placed

In Response

How do people decide what type of transportation to use? Be sure to use details from the passage to support your answer.

Adventure 10

Tales Through Time



**When is a story
fact or fiction?**

Tell Me a Story!

Most of us love to listen to a good story. Telling a story is a form of art. The folks who tell tales are called storytellers. People all over the world tell stories. A crowd **gathers** near the storyteller. They like to hear the stories.

The First Stories

Long ago, most people did not know how to write. They spoke or sang their words. Sound is a large part of a good story. As one person tells the tale, listeners have a picture in their mind. A story can mean different things to each person. Storytellers bring their words to a story. Listeners bring their imagination.



Storytelling Around the World

Stories around the world are alike in many ways. People enjoy them because they make people feel good about their lives. They teach people about their history. Early people used stories to tell why things happened on Earth. They did this because they did not know much about science. The stories helped them feel safe.

Most tales from Africa show happy endings for people who make good choices. This helps people know they can live through bad times. This also helps children learn how to act.

In China, telling stories was a **planned** event. Storytellers were paid to tell their stories in storyhouses. Some stories were **especially** long. A storyteller could only tell a **couple** of tales. Soon most of the people had heard all of the stories. Then the storyteller would move to a new town. **Meanwhile**, a new storyteller would come. That person would tell new stories.

Storytellers in old Japan sold candy. They rode bikes into a town. When the storytellers arrived, they put two wooden blocks together. This was a sign that it was story time. The blocks had a small stage. The stage was for picture cards. The storytellers showed the cards during the story. Children who bought candy stood near the stage. The storytellers were smart. They only told part of the story. They stopped when the story got exciting. The children had to come back the next time the storytellers were in town. Then they could hear the rest of the story.

Stories Today

Today, stories come in a lot of forms that are enjoyed by many people. Of course, books tell stories. Songs and films tell stories, too. But the old way of telling a story out loud is still the best. Children everywhere beg, “Please tell me a story!”



Main Idea

Reread the passage with a partner. Then, use W-I-N to find the main idea of each page. Write a main idea statement in each of the squares. Then, using the main idea statements, create a summary of the passage in the fourth square. You may need to add additional words or phrases to your summary to make it sound correct.

1.

2.

3.

4.

**Storytelling;
Storytellers**

Medicine in Mesopotamia

By Tyler Martin

Long ago, before people kept records, they told stories of large cities and cultures that were rich in wealth and knowledge. People did not know how to write these stories down. The stories seemed to be nothing more than tall tales, but often the stories had some truth to them. The land and culture of Mesopotamia was the subject of many stories.

Mesopotamia

In 3500 B.C., people started to live in groups. These people lived in a place called Mesopotamia. Stories were told of this land between two rivers where a person could grow almost anything. The people built cities. They studied diseases, too. They **learned** how to **treat** sick

people. People began to tell stories about how the people in Mesopotamia were great and important people because they could **cure** the sick. Treating the ill was not their only talent.

These early people started to write. Writing let them record their history. They wrote their language in lines and pictures. They pressed the lines and pictures into flat pieces of wet clay. The clay dried and turned hard. Then these clay tablets could be kept. Many tablets have been found. People have learned how to read them. Some of them tell what these people knew about medicine. Others tell of the tales and stories that were common during this time.

Doctors and Treatments

Most of the time, a family took care of a sick person at home. Doctors went to the person's house. Sometimes, a hut was built near a river. The sick person stayed there. The people thought that rivers had the power to heal. They believed the water carried away whatever made the person sick.

One type of doctor in Mesopotamia was a healer. These doctors thought things in nature caused some illnesses. They knew about food poisoning. They understood broken bones. They

learned that some diseases could be passed from person to person. These natural healers washed wounds to clean them. They used bandages to keep dirt out.

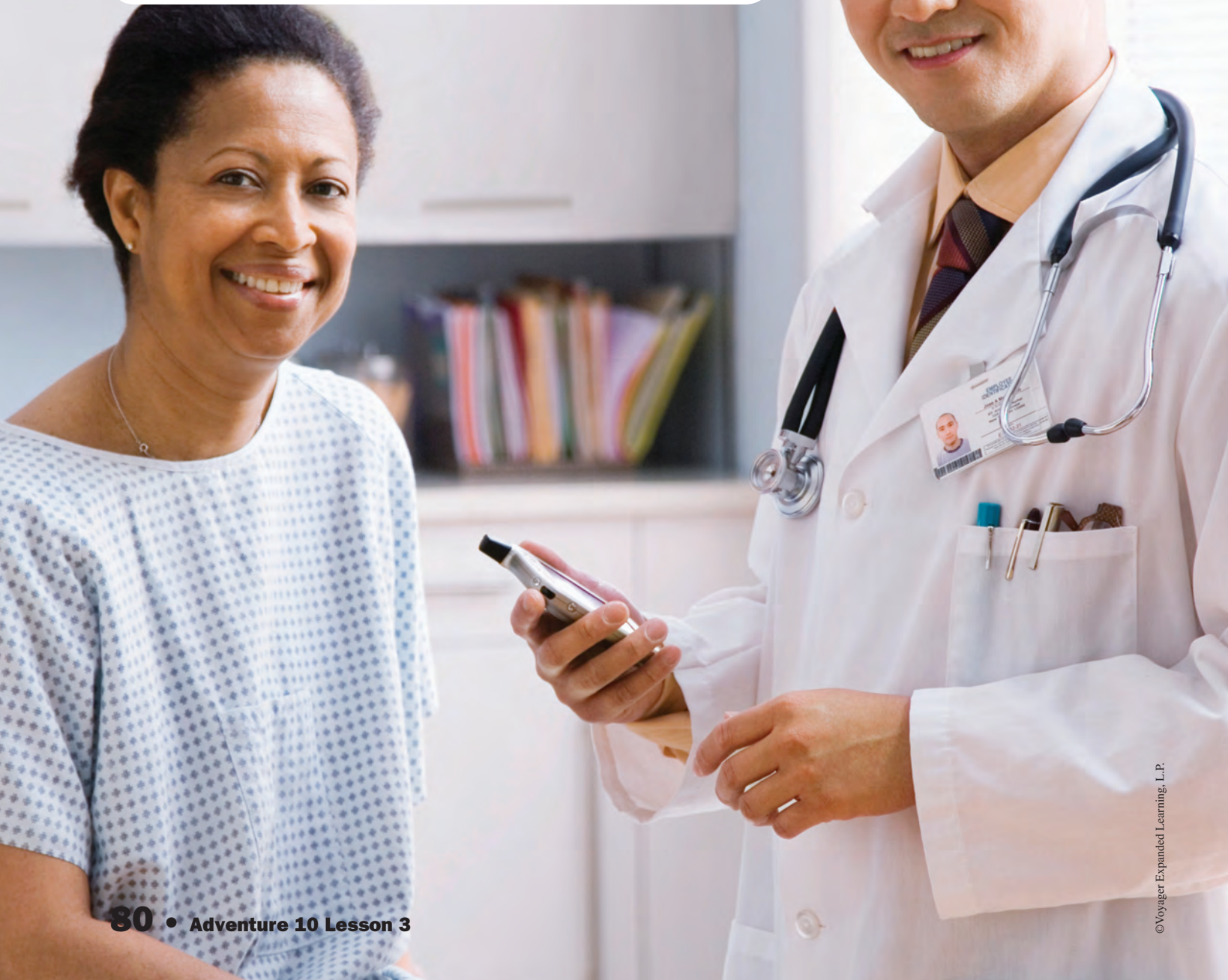
These doctors also knew that plants could be used as different types of medicine. The bark of a special type of tree might help someone's pain while a particular flower might help another person's heart. Many stories were told about the wisdom of these doctors, and people would come from all over to learn from them.



Medicine Today

Much of what people knew about medicine long ago is still true today. Many of the same diseases continue to trouble people. Many of the same plants are still used to make **helpful** drugs. Some of the ways that doctors treated people long ago seem quite modern.

The stories of Mesopotamia and the people who lived there continue to interest people who study history and **ancient** cultures.



Retelling

When retelling information from the passage, answer the questions *who*, *what*, *where*, *when*, *why*, and *how*.

Paragraphs 2 and 3:	Who?	What?	Where?	When?	Why?	How?
Paragraphs 4, 5, and 6:						
Paragraphs 7 and 8:						

Adventure Checkpoint

Quick Check

Answer each question using one of the vocabulary words in the box.

story person were art large form

1. Which word means a type of something? _____
2. Which word means the same as a human? _____
3. Which word is the opposite of small? _____
4. Which word could be used as the heading for a list that included paintings, sculpture, and drawings? _____
5. Which word describes something that has characters, settings, and events? _____
6. Which word could best complete this sentence? We _____ going to the store yesterday.

Vocabulary Check

Read the definitions. Write a vocabulary word from the box next to its definition.

gathers planned especially couple meanwhile

1. at the same time _____
2. chose a set of steps to do something _____
3. brings together; collects _____
4. two of something _____
5. one in particular _____

Comprehension Check

Reread “Tell Me a Story!” in Lesson 1. Then complete the chart to show main ideas and supporting details, using information from the passage.

When retelling information from the passage, answer the questions *who*, *what*, *where*, *when*, *why*, and *how*.

Paragraph 2:	Who?	What?	Where?	When?	Why?	How?
Paragraph 5:						

Always Green

By Providenza Grenada

Trees are found in almost every region of the world. Some trees have leaves that turn bright colors in the fall. These trees lose all their leaves in the winter. However, some trees stay green all the time. In the past, people did not understand why certain things happen, such as the sun rising each morning or why some trees stay green all year while others lose their leaves. People would create stories about these strange events to try to explain them.

What Is an Evergreen?

An evergreen is a tree that stays green all year. One ancient story said that the Raven had **stolen** some life-giving water from the top of a tall mountain. The Raven took as much as he could hold but when he stopped

to rest, he spilled the water onto the pine tree. From that day on, the pine tree never lost its needles in the fall and stayed green all year.

Today we know there are many types of evergreen trees. The leaves of an evergreen tree are called needles. Some evergreen needles are round. Some are thin and pointed. Other evergreens have flat needles. Some needles grow **separately**. Other needles grow in clumps.

Evergreens do not keep their needles forever. They lose old needles as the tree grows. The old needles turn brown and fall off. But evergreens never lose all their needles at once. When an old needle falls off, there is already a new needle growing. This is why evergreens always look green.

Where Do Evergreens Grow?

Evergreen trees are **located** in most of the United States. Evergreens often grow in forests that stretch for many miles. Evergreen trees can be very small. Some evergreen trees are the biggest and oldest trees on Earth.

The land along the Pacific Ocean has the largest evergreen forest in the world. This forest grows from Alaska to California. The forest has some of the largest living things on Earth—giant redwood trees. The oldest living thing on Earth is also an evergreen tree. It is the bristlecone pine. This kind of evergreen grows in the Rocky Mountains.



How Are Evergreens Used?

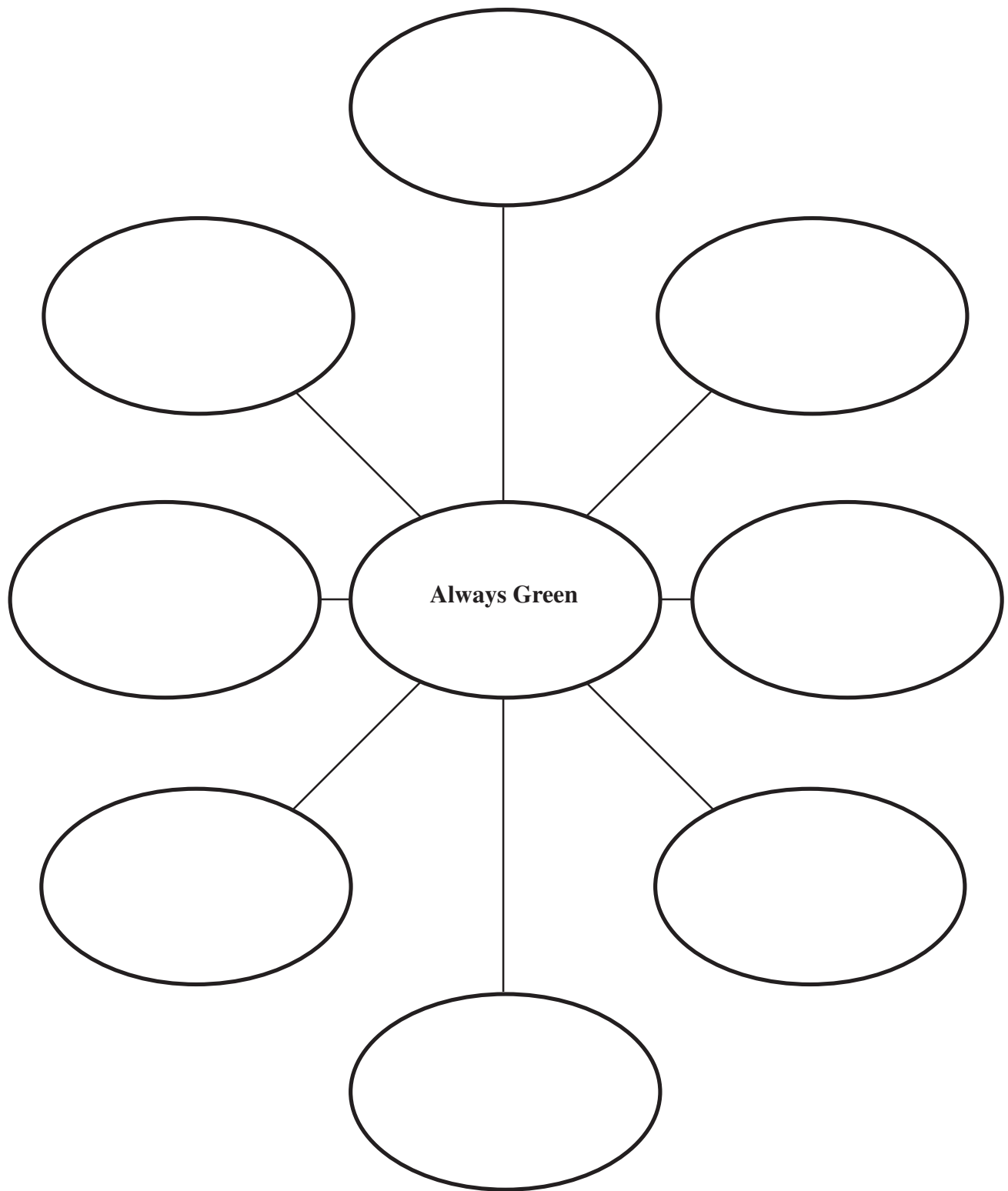
Animals like to live in the safety of evergreens. Birds like to perch on their tall tops. Rabbits can hide in their low branches. Snakes find shelter in the carpet of brown needles that have fallen to the ground.

Many things are **designed** from evergreen wood. Cedar chests and cedar closets help keep clothes safe from bugs. Pine is used for **furniture** and flooring. Redwood is used to build outdoor decks and porches.

You might have an evergreen in your yard! They usually grow in a pointed shape, and they smell good. People use evergreens for shade in their yards. Many evergreens are used during the winter holiday season.



Facts and Details





Sasha, Mansor, and the Storks

Long ago, the land of Persia was ruled by a young king named Sasha. Mansor was his friend and helped Sasha rule wisely. Most of the people respected their leader, but Sasha had an enemy named Kashenor. Kashenor wanted his own son, Mizra, to be king. He wanted to get rid of Sasha.

Sasha liked to collect beautiful things. So, one day, Kashenor decided to trick him. Kashenor dressed up like a **merchant**. He brought many things for Sasha to buy. Sasha saw a small box with a drawer and asked what was in it.

Kashenor opened the drawer. Inside there was a roll of paper and a large gold coin. He told Sasha that this was a magic coin and the paper explained how to use it. He gave them both to Sasha as a gift.

The paper had unusual writing on it. Sasha could not read the **language**. He gave it to his wise men to **figure** out. When they told Sasha what it said, he became excited.

“Mansor, this tells a magic word that will let us become any animal!” Sasha said to his chief helper.

“Can we turn back into men afterward?” asked Mansor.

Sasha said, “Yes. All we have to do is repeat the magic word and bow to the east three times. However, if we laugh when we are animals, we will forget the magic word.”

Mansor and Sasha decided to become storks. They both held the large gold coin and said “Mutabor” together. Suddenly, they changed into birds. They could fly! As they watched the stiff movement of other storks, they **giggled**. When they giggled, they forgot the word.



Sasha and Mansor flew over the palace. They were surprised to see Kashenor and Mizrah acting like rulers. “We have to go back,” Sasha said angrily. But they had laughed away the **memory** of the magic word.

Sasha and Mansor did not know what to do. They thought they would never be men again. They flew to a large evergreen cedar tree to rest when a loud screech startled them. When they turned to look, they saw a large owl in the tree.

“I am so happy you’re here,” said the large owl. “I’m Naja, the daughter of the king of India. Kashenor put a spell on me until I could find someone to marry.”

“Kashenor tricked us as well,” said Sasha. “I will marry you but first we must turn back into people. How will we do that?”

Naja said, “We can listen to see if Kashenor will brag about what he has done. It’s possible he will say the magic word. Then we can use it to turn back into people.”

And that is just what happened. When Sasha and Mansor changed back into men they went back to the palace and put Kashenor and Mizra in prison.

Sasha kept his promise and married Naja. They lived happily ever after and Sasha ruled his kingdom wisely.



Vocabulary Practice

Draw a picture to show you understand the meaning of the vocabulary words. Then write a sentence under each picture to describe what you have drawn. Be sure to use the vocabulary word in your sentence.

merchant	language
figure	giggled

Sewing Stories

By Cora Statler

Think about your life. Think about what is important to you. Think about what you want others to know about you. What would your life look like in pictures? How would you show it to others? (36)

Long ago in Africa, people used cloth to tell stories. Quilts were like an unspoken language. People sewed pictures about things that happened. They used colored fabric

to show how they lived. The cloth was a way for people to keep their history alive. (80)

Quilts are made from many different pieces of cloth. Some pieces are cut from old clothes. Some pieces are scraps of new material. Each piece is chosen with care and helps to tell the story on the quilt. The pieces are joined together into something beautiful. (126)



The African people used colorful pieces of cloth every day to make things like clothes. They learned to sew layers of cloth together to make quilts. Sometimes the quilts were designed with certain patterns. Quilts kept people warm and could be used to sleep on. Quilts made their homes colorful. The pictures on quilts showed messages. The quilts showed what people believed. Many quilts told the story of a person's life. (197)

Beginning in the 1600s, many Africans were brought to America as slaves. They were forced to work for others. Many of them ran away from their jobs. They needed to find a safe place. African women made quilts to be helpful. The quilts sent a message. They showed pictures of places that were safe. Africans trying to be free looked for the quilts. The quilts told them where to go for safety. (269)





Most of the Africans lived in the South. They worked on large farms. They had to work very hard. Sometimes families had to live separately from each other. Even young children had to work hard. Mothers taught their children to sew. Children learned to make quilts. (315)

Making a quilt was a group event. Southern women admired the quilts that the African women made. They listened to the stories the Africans told as they sewed. American women learned how to make quilts, too. They told their own stories as they worked. Their quilts told the stories of their lives. (367)

African women made some

quilts for the farm families. Other quilts were for their own families. Many quilts stayed in the families for generations. This is how a family passed its memories down to its children. (403)

The African people in America became free. Their quilts tell many stories of sadness and of hope. The colors and shapes show their history. The beauty of the quilts appeals to many people. (436)

Today, quilts are thought of as art. Some of the very old quilts are now treasures. (452)

If you made a quilt, what would it look like? What would it say about you? What story would it tell about your life? (476)

Words per Minute _____

Adventure Checkpoint

Comprehension Assessment

Read “Sewing Stories” to answer the following questions. Circle the letter of the best answer.

1. Which of these is the best summary of Paragraph 3?
 - A. Quilts are made from many different pieces of material that are carefully chosen.
 - B. Some of the pieces of material used to make a quilt come from scraps of new material.
 - C. Different pieces of cloth are carefully chosen and cut from old clothes to make a beautiful quilt.
 - D. Quilts tell a story using carefully chosen scraps of material cut from pieces of old clothes or new fabric.
2. What is the main idea of Paragraph 7?
 - A. Making a quilt was a group event.
 - B. Making a quilt was hard work.
 - C. Only African women made quilts.
 - D. African people in American became free.
3. Each square on a quilt . . .
 - A. must be made by the same person.
 - B. is made from the same type of material.
 - C. must be cut from material that is the same color.
 - D. may be a beautiful work of art.
4. What is the meaning of *unspoken* in Paragraph 2?
 - A. not true
 - B. very old
 - C. not spoken or said
 - D. not interesting
5. According to the passage, how did children learn to make quilts?
 - A. Their fathers taught them.
 - B. Their mothers taught them.
 - C. They learned on their own.
 - D. They took a class.

Vocabulary Assessment

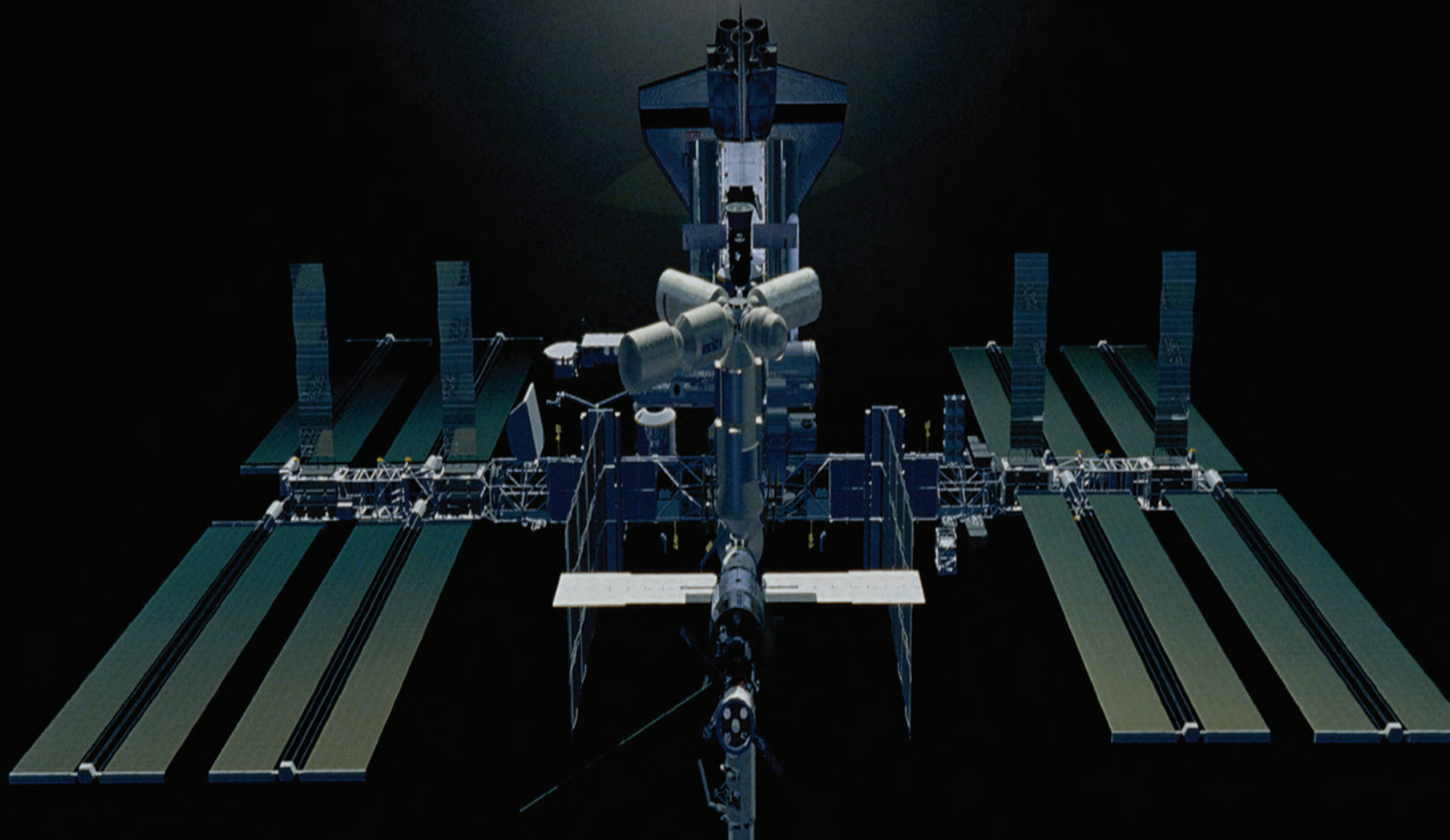
1. Which word means the same as *designed*?
A. created
B. sewed
C. tricked
D. grasped
2. What is the meaning of *separately* in Paragraph 6?
A. away or apart from
B. close to
C. next door
D. together
3. Which sentence uses the underlined word correctly?
A. My grandmother learned our delicious dinner in the oven.
B. Even though they are brothers, they live separately from one another.
C. Jill smiled when she learned the letter from her grandmother.
D. The truck smoked when it broke down in the language of the road.
4. What is the meaning of *memories* in Paragraph 7?
A. things found on a farm
B. things that are unimportant
C. things remembered from the past
D. things that have a pattern
5. What is the meaning of *helpful* in Paragraph 5?
A. tools
B. quiet
C. food
D. useful

In Response

How would someone make a story quilt? Be sure to use details from the passage to support your answer.

Adventure 11

Beyond the Stars



What changes do you think
the future will bring?

The Space Hotel

By Cecila Summers

Narrator: It's time for the Smith family to go on vacation. This year their father has decided to go somewhere very different. Tad knew it was going to be different when they boarded a spaceship to be **transported** to the Mars Hotel. They are making their first trip to a space hotel.

Lisa: Dad, what will our hotel be like?

Mr. Smith: You saw the pictures. We'll have very nice rooms, and we'll have a living room with a large window so we can **view** Earth.

Tad: I'll have so much fun because there's a huge water playroom and all kinds of games. Does the hotel really spin slowly in space?

Mrs. Smith: Yes it does. The spinning helps the hotel create fake **gravity**. In some places of the hotel there will be very little gravity. It's going to be the vacation of a lifetime!

Cast of Characters

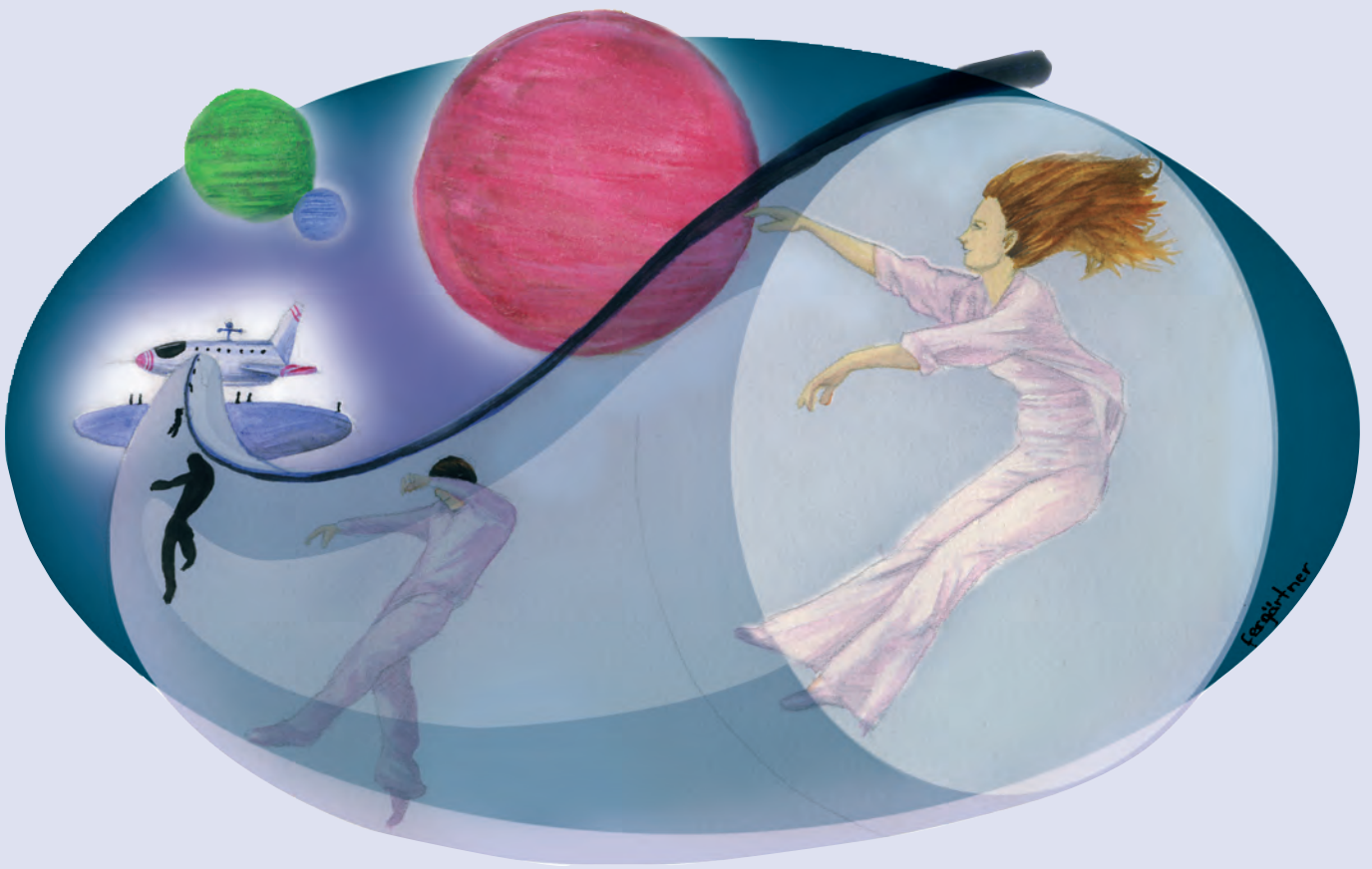
▶ Lisa Smith

▶ Tad Smith

▶ Mr. Smith

▶ Mrs. Smith





Tad: My **favorite** thing is going to be moving around with little gravity. We'll just float around almost weightless.

Mr. Smith: I'm not sure it's that easy, Tad. I hear it takes some practice before you can move around like you can on Earth. Sometimes gravity is good. That's why your mother and I will probably stay along the outer rooms of the hotel. That's where the gravity is strongest.

Tad: The playrooms have very little gravity, right? I think floating would be a lot like swimming in air! Hey! I'll be able to jump and spin and somersault more easily. That will be fun.

Mrs. Smith: Be sure you don't spin yourself into other people. You can still get hurt in space.

Narrator: The spaceship docks at the hotel, and the door opens. Passengers leave the spaceship. They enter a long tube and pull themselves along the tube toward the exit. Legs float in every direction as people **experience** the low gravity.



Narrator: Soon, the family is together in their hotel room. Mrs. Smith anchors herself to a chair. The children are eager to go play. Mr. Smith puts the suitcases in the bedrooms.

Lisa: I want to play Dodge-Blob. I wonder what it will be like to throw blobs of water at Tad. What happens when they hit?

Tad: They splatter into a million tinier water blobs! I bet the rules are difficult to learn.

Mrs. Smith: I think Dad and I will be happy to stare out the window for a while. Earth is so beautiful, and space is so big!

Mr. Smith: The stars look close and cold. There isn't any air between us and them, so they don't seem to twinkle as they do from Earth.

Tad: Lisa and I will check out the other things to do. I hope they have badminton! Can you imagine playing badminton in low gravity?

Mrs. Smith: Tomorrow we'll explore the hotel, and we'll all play badminton. Today, you two children go play in the water and enjoy yourselves.

Mr. Smith: Badminton should be interesting to play in such low gravity. So far, everything is interesting in space!

Retelling

Use the information in the play to answer as many of the questions as possible. If a question is not answered in the play, leave it blank.

Who?

When?

Where?

What?

Why?

Use your answers above to write a retelling of the passage on the lines below.



Interactive Art

Have you ever wished you could jump into a movie? Have you ever wanted to play music with your favorite musician? Would you like to add color to a painting? Now you can!

What Is Interactive Art?

This might sound like magic, but it is real. It is as real as it can be on a computer. It is called interactive art. Interact means “to act upon one another.” Interactive art is when someone uses a computer to transform a work of art into something different or new. Because only a copy of the **original** art is being used, the original art is not damaged. The user just has fun changing how it looks.

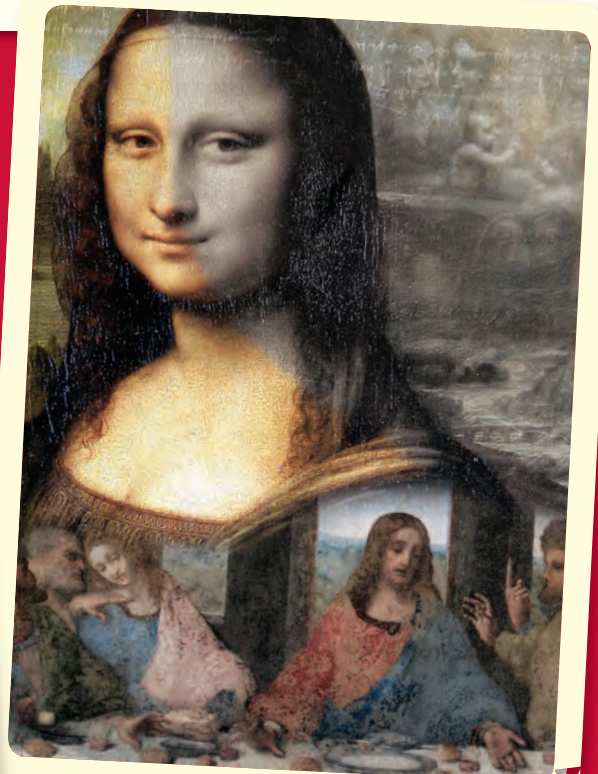
Would a movie be better with a new ending? Change it. Would a song be better with more melody? Add your own. Would a painting be better with a different character? Make the person look the way you want. You can do all this using a computer.

Is This Really an Art Form?

Some people say this is not really art. After all, the user did not produce a new work. Others think that it is too hard to do for fun. Many people simply want to **relax**. They are content to watch or listen to what others have made.

Some people believe being interactive is a new way of being an artist. They think it will **encourage** more people to take part in art activities. People who play computer games enjoy interactive games. As they play, they play with other players, moving from one level to the next. They learn and use new skills to move ahead in the game.

Imagine making a movie or writing a song and putting it on the Internet. On one hand, your work might be seen or heard by millions of people. On the other hand, there would be millions of others doing the same thing. Would there be too much choice? Would your art be lost in the crowd? And if your work were found, most likely a computer user would change it. How would that make you feel if you were the original artist?



Looking Ahead

There are good and bad parts to interactive art. However, this kind of art will continue to grow. Once something is possible, it will not be **dismissed**. People are **curious**. People like new things. People like to be in charge. They like to make a difference and change things. It is clear that interactive art is an exciting path into the future of fun.



Retelling

When retelling information from the passage, answer the questions *who*, *what*, *where*, *when*, *why*, and *how* if those questions are answered in the passage. The first one is done for you.

Paragraph 2:	Who? people who use computers	What? do interactive art	Where? on computers	When?	Why? because they want to change an original	How? by using a computer to change how the piece of art looks
Paragraphs 4 and 5:						

Adventure Checkpoint

Quick Check

Underline the word that contains the base word part *port*.

1. perform

import

formal

2. reform

formation

transportation

Underline the word that contains the base word part *form*.

3. portfolio

passport

perform

4. import

transportation

inform

Vocabulary Check

Read the questions. Write a vocabulary word from the box that best answers each question.

experience

favorite

view

original

relax

curious

dismissed

encourage

1. Which word means “to look at something”? _____

2. Which word means the same as *forgotten*? _____

3. Which word is the opposite of *bored*? _____

4. Which word would you use to describe something you like the best? _____

5. Which word means “to feel calm”? _____

6. Which word describes something that happens to you? _____

7. Which word describes something that is one of a kind? _____

8. Which word describes what you are doing when you say, “Good job!”? _____

Comprehension Check

Reread the play “The Space Hotel” in Lesson 1. Then complete the chart to show main ideas and supporting details, using information in the play.

Main Idea of Page 1		Supporting Details
Main Idea of Page 2		Supporting Details
Main Idea of Page 3		Supporting Details

Hospitals of the Future

By Tyler Martin

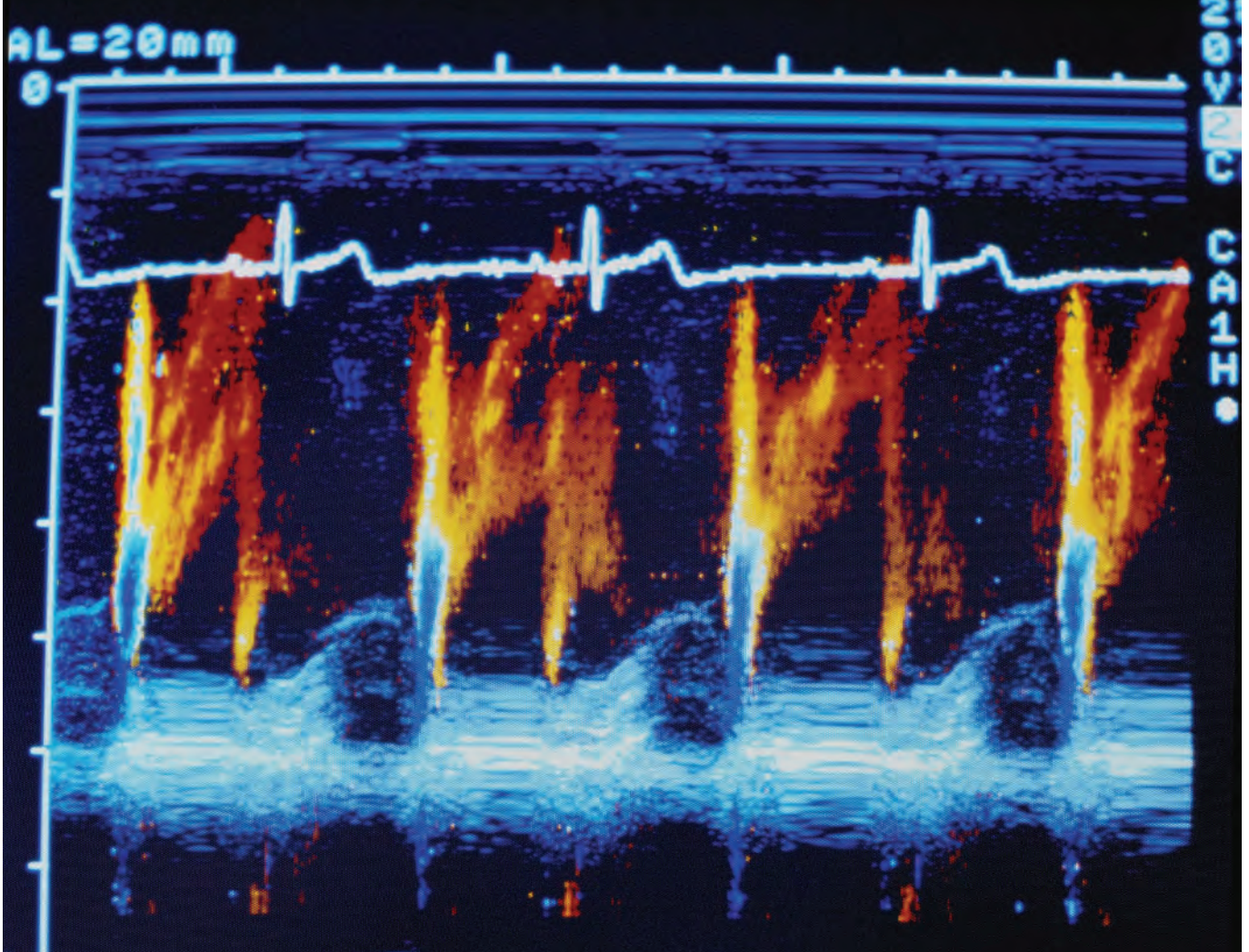
People do get sick from time to time. That has always been the case. Sometimes an illness is serious. When that happens, the person who has gotten ill must go to a hospital. The way we care for sick people will change in the future.

New Drugs and Shots

Shots can help people stay healthy. Some shots and drugs prevent diseases. Other medicines can help people feel better when they get sick. In the future, there may be new drugs. Some of these drugs will help people stay well. Others will treat illnesses, but they will work faster and better than today's drugs.

Today the same kind of drug is used to treat a disease. Each person who has that disease takes that drug. The new drugs will be different. Special drugs will be made for each person. Those drugs will be the best ones to cure a certain illness. They will also be the best drug for a certain person with the disease.





Taking a Look Inside

Sensors are machines that can “see” things. They can see inside a person’s body. Sensors can make a picture of what they see. They send the picture to another machine. Doctors and nurses look at the picture. The picture will quickly tell them what is wrong with a sick person.

Some people feel **nervous** in the hospital. Using sensors to gather data **benefits** patients because they cause less stress. The nurse will not have to touch patients to see how they are doing. The nurse will not have to stick patients with a needle to **obtain** a blood sample. The nurse simply has to read the data from the sensors.



Surgery

Today, doctors must cut open the body to treat some serious diseases. They have to make a large cut so they can see inside. In the future, doctors will be able to **operate** better. A doctor will use small robots. Robots can work through a small hole. This is safer for the patient. In some cases, the doctor will not have to cut the body at all.

Doctors may use radio waves to treat some sick people. Radio waves go into the body through the skin. This is also safer for the patient. Today's hospitals treat all kinds of diseases. They treat them all in the same place. Future hospitals will be smaller. Each hospital will just treat certain diseases. New medicine will make treatment better. It will help people **avoid** going to the hospital. It will be easier to give patients better care.

Fix-Up Strategies

Read each question about “Hospitals of the Future.” Write numbers from the box to show under which heading the answer would be found. The first one is done for you.

1 = New Drugs and Shots

2 = Taking a Look Inside

3 = Surgery

1. How can robots help doctors?

3—Surgery

2. What do sensors do?

3. How do doctors use radio waves?

4. How do sensors benefit patients?

5. How will the new drugs and shots be better than the ones doctors use today?

6. What happens when a doctor today operates?

7. How do sensors work?

8. What are shots and drugs used for?

9. Why will future hospitals be smaller?

10. What are sensors?

Space Elevators

By Gio Dominic

Do you wish you could go into space? Think how much fun it would be. You would ride the space shuttle. You could see what Earth looks like from space. Maybe you could even live on the space station.

The space shuttle is a powerful tool. It is the first spacecraft that can be reused. However, it is very **expensive**. It costs a lot of money to transport or move people and cargo into space. A lot of time passes between trips. Sometimes things like bad weather disrupt the launch. What if there was a better way? What if going into space was as easy as taking an elevator?

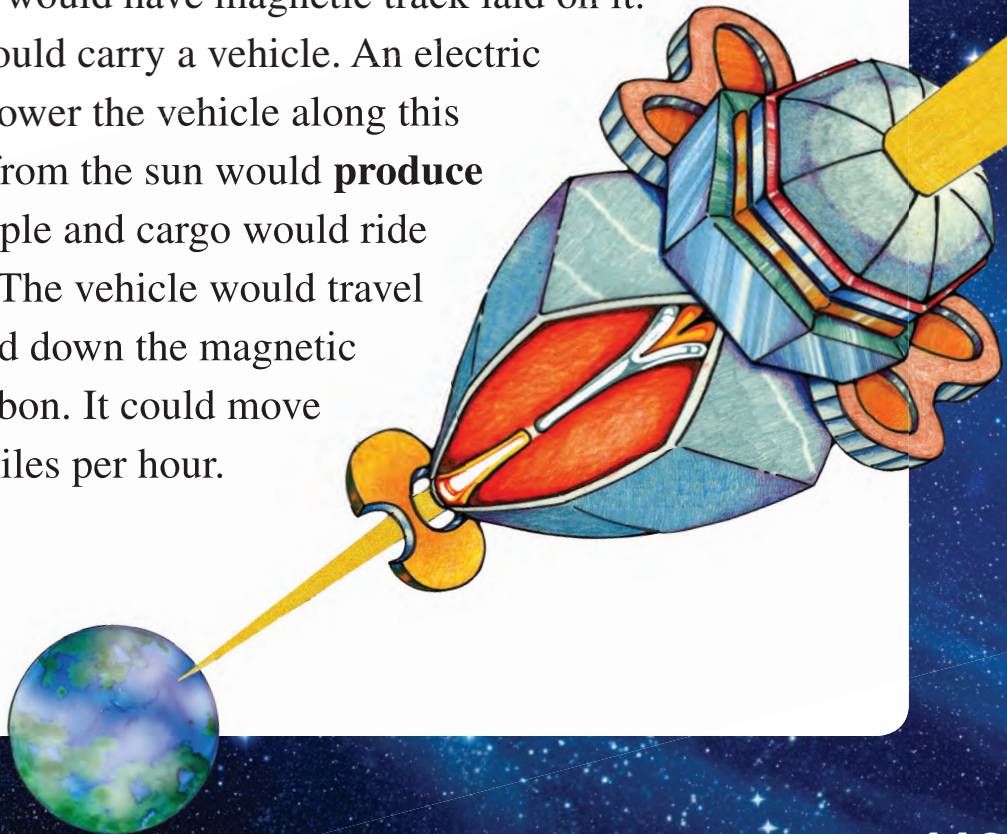


Ribbon to the Stars

A space elevator sounds like something from a science fiction story. But it is really being planned. Scientists are making a new material. This material is 100 times stronger than steel. It is as easy to bend as plastic. It would be made into a long ribbon. The ribbon would wind onto a spool, like thread. This ribbon would be part of the space elevator.

The ribbon would be anchored on Earth with the other end in space. A base would be built in the ocean. This base would **anchor** the ribbon to Earth. The spool of ribbon would launch on a spacecraft. The craft would orbit Earth. The craft would unwind the ribbon down to the base. The spool could continue to move up. The bottom of the ribbon would be anchored to the ocean base. The top end of the ribbon would be attached to a space station or other object. The ribbon would stretch about 62,000 miles into space. This is higher than the space shuttle goes!

The ribbon would have magnetic track laid on it. These tracks could carry a vehicle. An electric motor would power the vehicle along this track. Energy from the sun would **produce** electricity. People and cargo would ride in the vehicle. The vehicle would travel very fast up and down the magnetic strip on the ribbon. It could move at about 118 miles per hour.



Effect on the World

This new connection between Earth and space could be reused. It would not cost as much to **construct** as a shuttle. It could be used every day. The space elevator could carry satellites into space. It could also carry smaller craft. These small craft could launch from the top anchor. They could **explore** space farther out. The elevator could also carry space visitors many times.

Would you want to be a space tourist? Would you ride an elevator into space?



Vocabulary Practice

Fill in the blank with a vocabulary word to complete each sentence. Use the context clues in the sentences to help you.

expensive anchor produce construct explore

1. The twins decided to build, or _____, a tree house in their backyard.
2. Paul did an experiment that he hoped would make, or _____, certain results.
3. The students wanted to _____, or search, the cave.
4. How will scientists _____, or hold down, the space elevator to Earth?
5. Tom went to the store and saw that the football was more costly, or _____, than the volleyball.

Write two or more sentences about this passage using as many vocabulary words as possible. Remember, your sentences must make sense.



What's New?

Just about everything changes. You can probably think of many things that have changed. Compare how you do your homework with how your parents did theirs. Students have always used textbooks, but now you probably also use a computer. Consider the telephone you use. All telephones used to remain plugged into the wall. Now you can carry one anywhere you go. ⁽⁶¹⁾

How will things change in the future? Let's examine some ideas. Some products are already used. Others will come later. ⁽⁸¹⁾

Robots

Would you like your chores to be completed by a machine? For example, it will be much easier to use a room robot to vacuum your room. Simply turn it on and leave. When you return, the floor will be clean. All you will have to do is throw away the bag of dirt. What could be easier? You could have a robot that mows the lawn or washes the dishes. Your parents certainly would not hesitate to use a robot that washes the windows of your house! In the future, robots will do these and many more jobs. Robots will do the jobs people do not like to do. ⁽¹⁹¹⁾

Cell Phones

Sometimes you cannot see your friends in person. Cell phones of the future will let you see your friends when you call them. These remarkable phones will be very small. They will be smaller than the palm of your hand. They will be much thinner than they are today. They will let you do many more things than current cell phones. You might do more of your research using the Internet. You will play more interactive games and listen to music. You will even watch movies! (277)

Computers

Some computers sit on desks. They must be plugged in all the time. Some computers can be moved, so you can take them with you. These are called laptop or notebook computers. They can be used for a time without being plugged in. They all have screens that show images. In the future, pictures and words will be shown on the lid of a notebook computer. You will not have to open the lid to see the screen. You will be able to see if you have an e-mail message without opening the lid. (371)



Voice Commands

There is another very exciting idea. You will make machines work by just talking. You will tell your cell phone whom to call. You will tell your robot what chores to do. Your voice will direct all your computer's actions. You will tell it to search for something. You will tell it to play the movie you want to watch. You will answer e-mails by talking. Your voice will make the television change channels. Why type anymore? Your computer will type your words for you!

As you can see, the way we do many of the things in our daily lives will change in the near future. (478)

Words per Minute _____



Adventure Checkpoint

Comprehension Assessment

Read “What’s New?” to answer the following questions. Circle the letter of the best answer.

1. Which of these is the best summary of Paragraph 3?
 - A. Robots will wash the windows in people’s homes.
 - B. Robots will do jobs that people do not want to do.
 - C. Robots will vacuum your floors so you do not have to.
 - D. Robots will be used to mow the lawn and wash the dishes.
2. What is the stated main idea of Paragraph 6?
 - A. You will make machines work by just talking.
 - B. You will answer e-mails by talking.
 - C. Your voice will make the television change channels.
 - D. Your computer will type your words for you.
3. In the future, you will probably control most machines using your _____.
 - A. feet
 - B. voice
 - C. hands
 - D. thoughts
4. When you draw a conclusion about something in a passage, you are _____.
 - A. using only what the author says
 - B. using only what you know
 - C. using what you know and what you are reading
 - D. using what you are reading and what your friends tell you
5. What is the unstated main idea of Paragraph 4?
 - A. Sometimes you cannot see your friends in person.
 - B. There are many games you can play on a cell phone.
 - C. Cell phones of the future will let you do many things.
 - D. Cell phones of the future will let you see your friends when they call.
6. What was the author’s purpose in writing this passage?
 - A. to entertain the reader
 - B. to inform the reader
 - C. to entertain the writer
 - D. to inform the writer

Vocabulary Assessment

1. Which word means the same as *nervous*?
 - A. lonely
 - B. honest
 - C. ordinary
 - D. worried
2. Read the following sentence.

My favorite thing is going to be moving around without gravity.

What does the word *favorite* mean in this sentence?
 - A. what is liked least
 - B. what is liked best
 - C. what is not right
 - D. what is not wrong
3. Which sentence uses the underlined word correctly?
 - A. The boat will obtain across the clear, blue lake.
 - B. Mrs. Johnson will encourage Joe to plant a vegetable garden.
 - C. Bob likes to anchor the kitchen when he is done cooking.
 - D. The rare flower constructs in the southwest part of the state.
4. Read the following sentence from the passage.

People are curious.

What does the word *curious* mean in this sentence?
 - A. wanting to learn more
 - B. wanting to give more
 - C. wanting to do less
 - D. wanting to be right
5. Which word means the same as *benefits*?
 - A. notebooks
 - B. calm
 - C. forgotten
 - D. helps
6. What is the meaning of the word *expensive*?
 - A. keep away from
 - B. give hope to
 - C. costs a lot
 - D. in the past

In Response

The passage describes robots, cell phones, and computers. Which of these machines would be most helpful to you? Write your response on notebook paper. Be sure to use details from the passage to support your answer.

Adventure 12

Did You Know?

What strange or interesting facts do you know?

Colored Rain

July 25, 2001

Kerala, India

by Anisha Chopra



What was the loud bang heard over Kerala at about 5:30 this morning? What was the light that flashed across the rainy sky, and what was the cause of the unusual thunder? People have been asking these questions, and there is one other odd happening that has not been explained.

Yesterday, the rainfall looked normal, but today, the rain is yellow, green, black, and red.

People are upset because strange things have been happening over the past several months. There have been earthquake **rumbles**, and the earth has been sinking in places. Water in wells has **swirled**, and house walls have cracked. There have been floods and landslides. People wonder what it means, and many are frightened.

Concerned citizens took samples of the colored rain to scientists to study. Experts say that the different colors are most likely dust picked up in the **atmosphere**. For example, the yellow rain could be colored by sand dust.

Did colored rain fall in your district? If so, what did you think about it?

July 31, 2001

Kerala, India

by Anisha Chopra

The official verdict is in. The colored rains that fell last week were caused by dust. A small comet **exploded** over Kerala and spread different-colored dust into the atmosphere. The rains washed the grains of dust out of the air.

However, scientists learned something else very interesting. When they studied the dust grains closely, they made a surprising discovery. Instead of the grains looking like dust, they looked like the cells of living things. Some scientists think this could be a sign that there is life beyond Earth.



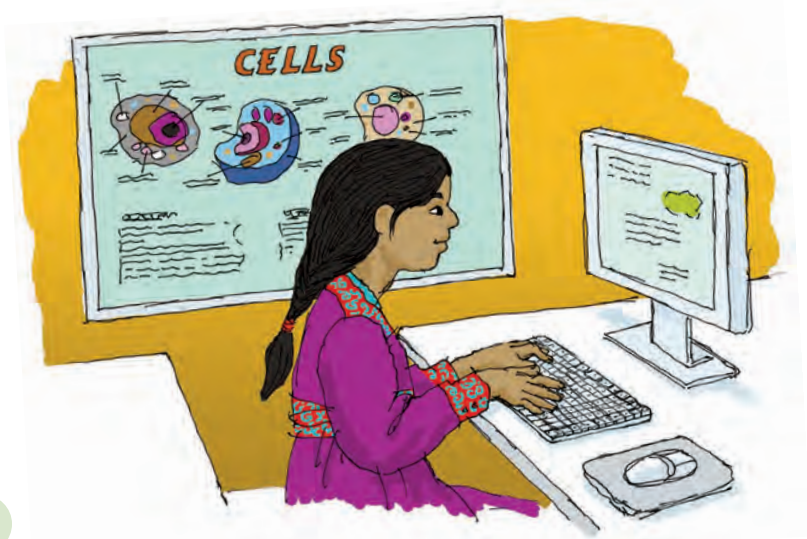
August 2, 2001

Kerala, India

by Anisha Chopra

What does finding a cell mean? A cell equates to life. In some ways, the cells in the rain were similar to the cells on Earth. However, the cells did not have some important things that all living things on Earth have. Some scientists think this would be normal. Life in another place in space would probably not look like life on Earth.

Scientists will keep studying the cells because they want to know where these tiny objects came from. They will compare the cells they found in the rain to the cells in other living things on Earth. Remember—cells mean life. If these strange cells did not come from Earth, where did they come from?



Could the cells be from an alien life-form living in outer space? Did a comet with living cells hit our planet billions of years ago?

The 5 W's and H

Use the information in the blog entries to answer the questions.

Blog Entry for July 25, 2001

Who?

When?

Where?

What?

Why?

How?

Blog Entry for July 31, 2001

Who?

When?

Where?

What?

Why?

How?

Castles in the Air



Have you ever thought you saw a pool of water ahead on a hot highway? Did you soon realize that the water was not really there? Then you have seen a mirage. A mirage is bent light. The bending light tricks us. It makes us think we see something that is not there.

Fata Morgana

One of the most famous mirages is the Fata Morgana. This is named for a woman in the tale of King Arthur. Morgan le Fay was the king's half-sister. According to the legend, she lived in a palace under the ocean. Nobody could see the castle **underneath** the water.

The legend says that sometimes the castle would rise above the sea. Sailors would see a **vision** of a lovely, tall castle. They thought it was a safe place to land. However, the castle was not really there. It was a mirage but the sailors did not know this. They would **blunder** and sail toward it. This often cost the sailors their lives.

Mirages can make sailors think there are mountains nearby. In fact, the mountains may just be low hills. What makes this happen? There is a good explanation. Today, we understand why “castles” can appear in the air.

Sunlight and Air

The atmosphere of Earth produces the weather. The sun gives off light. Sunlight and air act together to make some beautiful sights. They make colorful rainbows and sunsets. They also make mirages.





Air forms in layers in our atmosphere. Each layer may have a different temperature than the other. As light travels through air, it bends. Different temperatures of air make light bend in different ways. The light from the sun bends up when it hits the hot surface of a road. On the road, where the light bends, we may see a mirage. It may be the reflection of the sky shimmering in front of you. The reflection of the sky looks like a pool of water on the road. It may look like water.

Sunlight hitting cold air bends down. This makes what is below the light look larger and taller than it really is. This is how a Fata Morgana mirage works. These visions often show up above water. This is how sailors can see a “castle in the air.” It also explains how they can believe they are close to shore. They can believe mountains are larger than they really are. A Fata Morgana can be beautiful. It can also be **dangerous**.

Get Real

The term *Fata Morgana* is still popular today. It means a vision, or something not quite real. People like the idea of something **mysterious**. Mirages once were a mystery, but now we know how they are caused. There are still other mysteries to be solved.

Retelling

When retelling information from the passage, answer the questions *who*, *what*, *where*, *when*, *why*, and *how* if those questions are answered in the passage.

Fata Morgana Paragraphs 2, 3, and 4	Who?	What?	Where?	When?	Why?	How?
Sunlight and Air Paragraphs 5, 6, and 7						

Adventure Checkpoint

Quick Check

Answer each question using one of the word choices.

1. Would you look up the definition of a word in a *dictionary* or in *water*? _____
2. Does a weather forecaster *predict* or *dictate* the weather? _____
3. When someone makes a decision, is it a *verdict* or a *dictionary*? _____
4. When you tell someone it is raining, are you talking about the *weather* or a *verdict*? _____
5. If someone writes a sentence you say, did you *dictate* or *predict* the sentence?

6. Do fish live in *water* or *weather*? _____
7. Does a baseball team play *together* or *alone*? _____

Vocabulary Check

Read the questions. Write a vocabulary word from the box that best answers each question.

concerned rumbles exploded underneath dangerous mysterious

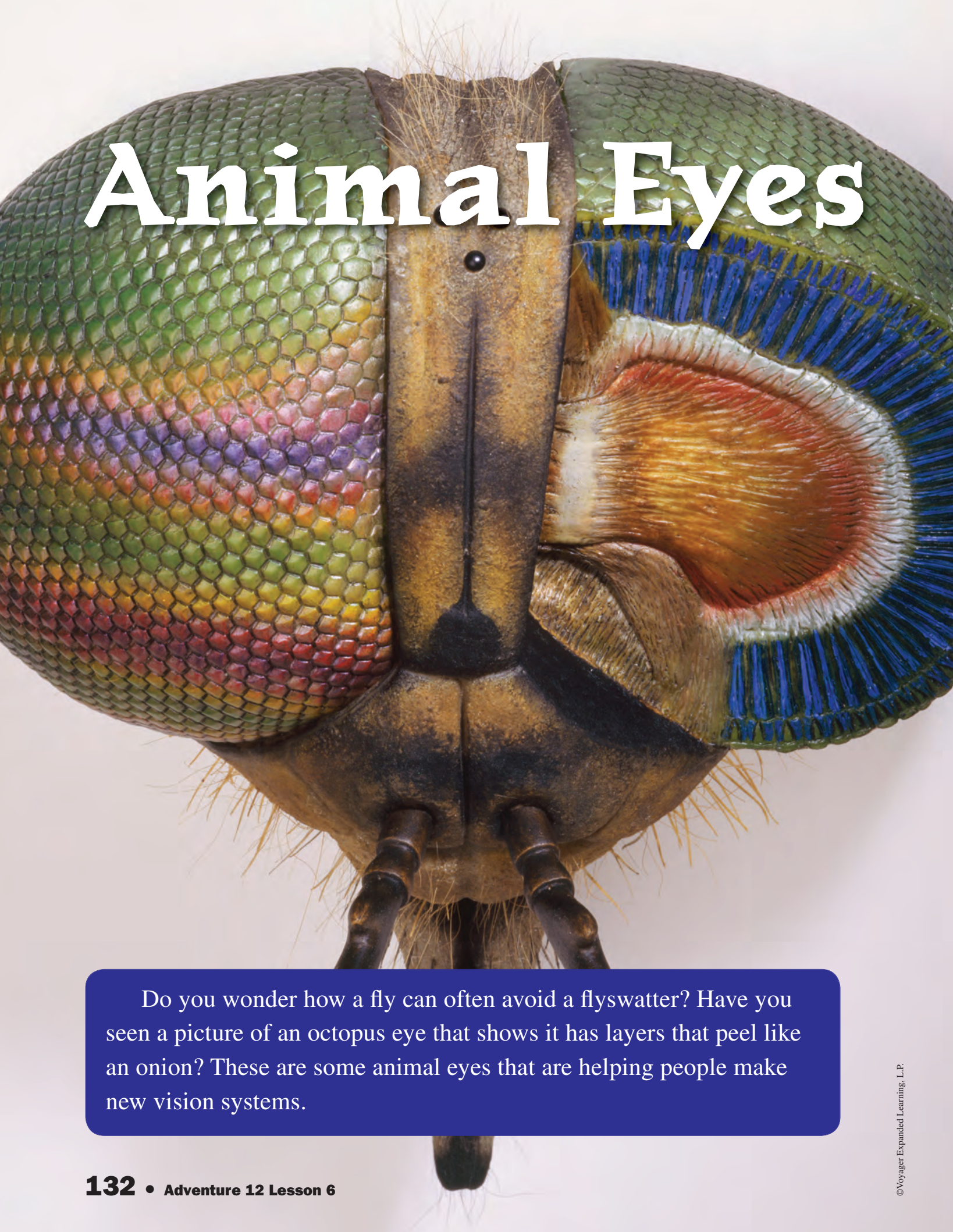
1. Which word is the opposite of *safe*? _____
2. Which word would you use to describe low, heavy rolling sounds? _____
3. Which word describes something that is hard to explain? _____
4. Which word describes something that blew up? _____
5. Which word means the same as *below*? _____
6. Which word would you use to describe someone who is worried? _____

Comprehension Check

Reread the blog entries in “Colored Rain” on page 122. Then complete the chart to show main ideas and supporting details, using information from the blog entries.

Main Idea of Blog Entry 1 (July 25, 2001)		Supporting Details
Main Idea of Blog Entry 2 (July 31, 2001)		Supporting Details

Animal Eyes



Do you wonder how a fly can often avoid a flyswatter? Have you seen a picture of an octopus eye that shows it has layers that peel like an onion? These are some animal eyes that are helping people make new vision systems.

How Eyes Work

Different animals have different kinds of eyes. The basic way eyes work is the same. Light bounces off an object. The light goes from the object into the eye. The light from the object hits a lens in the eye. A lens is a **curved** part of the eye. It **directs** light rays. The lens guides the light to a spot in the back of the eye. The animal's nervous system then forms a picture of the object. The nervous system “sees” the picture as the object.

Some animal eyes operate like cameras. They have just one lens. Some animals have eyes with many lenses. These are called **compound** eyes. Flies have compound eyes. The lenses let them see from **various** angles. This is how flies can see a flyswatter coming. They can move out of the way quickly.

Animals with eyes like cameras focus their lenses in different ways. Some animals have muscles that **alter** the curve of the lens. Some animals have a place behind the lens that fills with liquid. The liquid moves the lens. The octopus eye peels layers back. This helps the octopus eye focus in different light.

The eyes of an octopus have many layers.

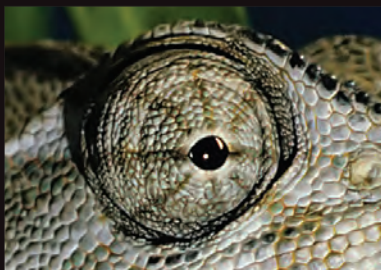


The Future of Seeing

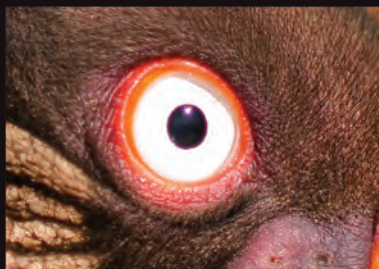
Scientists are able to use the way compound eyes work. They can make a round plastic eye with lenses all around it. Using many lenses lets the eye focus light in all directions. Each lens is hooked to a sensor. The sensor sends light to a machine. The machine can “see” a picture of an object.

Real eyes are round and soft. Cameras use hard, glass lenses. To make the new eyes, engineers will use plastic. The plastic material is soft. It bends into different shapes. New cameras will work much better than they do now. Someday, there may be human eyes made from plastic.

Scientists will make tiny seeing machines that will fit in very small places. People may be able to swallow an “eye” the size of a pill. Doctors will be able to see all around inside their patients’ bodies. Police may be able to put “eyes” in the sky that will see. They will record what happens in areas like parking lots. Scientists will use the new vision systems to drive vehicles on Earth and in space. We will owe many of these inventions to animal eyes.



Eyes come in all shapes and sizes. Can you tell which animals these eyes belong to?



Expository Text Features

Pictures can help you better understand what you have read. Describe each picture in the passage. Then tell the information you get from each picture.

Describe picture 1.

What information can you get from picture 1?

Describe picture 2.

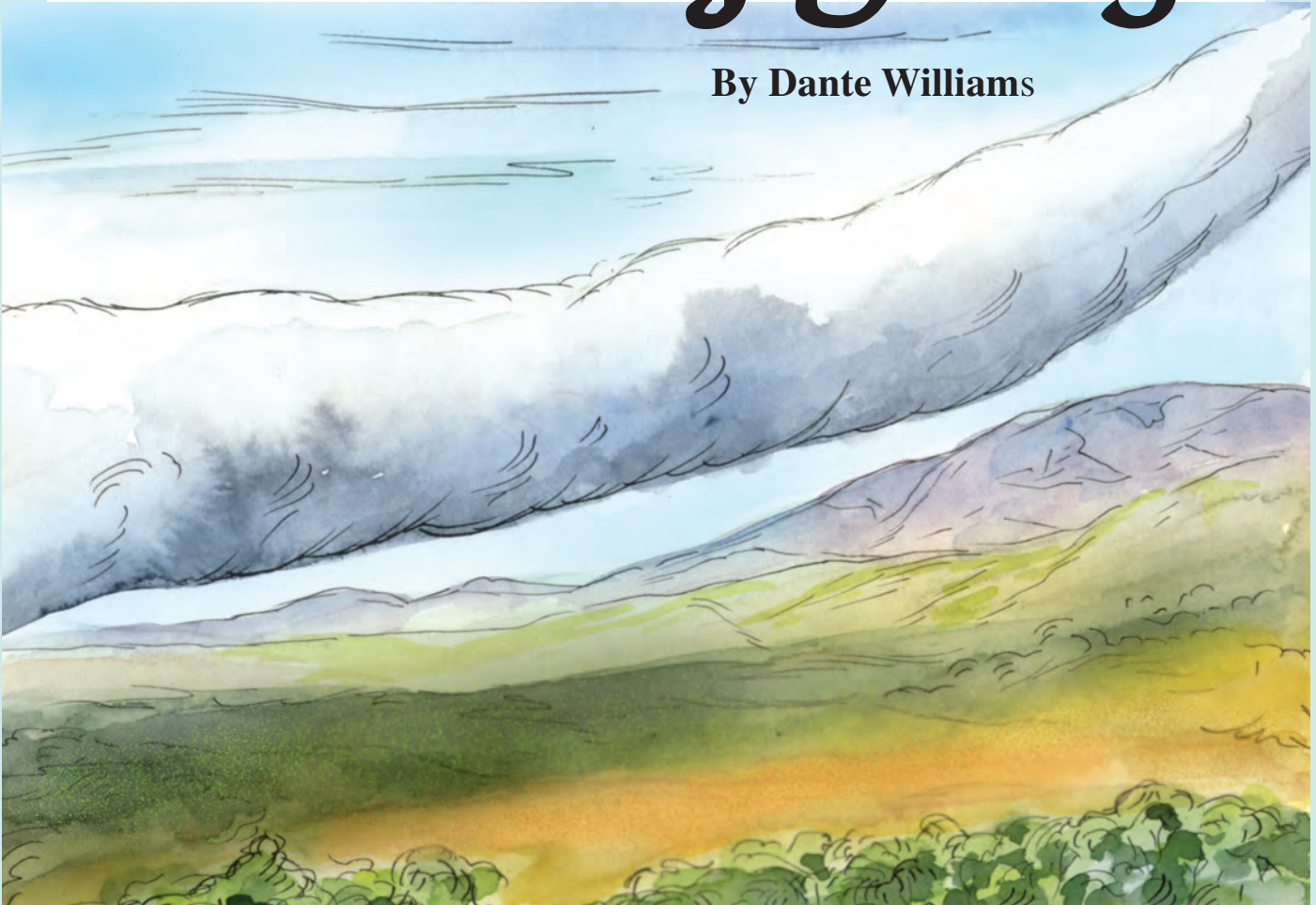
What information can you get from picture 2?

Describe picture 3.

What information can you get from picture 3?

Morning Glory

By Dante Williams



Sometimes something wonderful happens in northern Australia. A huge cloud called a Morning Glory extends above the ocean at dawn. Springtime sunrises often bring a Morning Glory delight.

A photograph of a Morning Glory does not begin to show how **fabulous** it is. It is an enormous cloud formation, which can be more than 600 miles long and more than half a mile high. It seems to curve from horizon to horizon. The cloud moves very quickly, rolling backward. At the same time, it moves across the sky at speeds up to almost 40 miles per hour.

Riding the Cloud

Morning Glory clouds look **threatening**. Although clouds are made of water drops, a Morning Glory rarely brings rain. The speed of the winds a Morning Glory makes can be dangerous for aircraft. A Morning Glory is great fun for adventurous people who like to glide.



A glider is an aircraft. Some can be ridden in like an airplane. Others are called hang gliders. Hang gliders are piloted by one person. The person hangs below the glider's wings. The pilot steers the hang glider. Hang gliders can have motors. The motors help them launch into the air and keep flying. However, the motors can be turned off. Then the pilot is free as a bird. The hang glider **soars** in peaceful silence. The pilot glides high above Earth.

Soaring through a Morning Glory gives a glider an exciting ride. Gliders come from around the world to ride a Morning Glory. They do it for fun and to set new records. Gliders **attempt** to glide the farthest and the fastest. Flights can last 3 to 4 hours. They can cover distances of more than 180 miles. Some updrafts have carried gliders almost 2 miles into the sky!

What Causes a Morning Glory?

Water, air, and temperature cause clouds and wind. The sun comes up and warms the land. Then air above the land also warms up. Warm air rises and makes the wind move up. As the air rises, it cools off and sinks. This up-and-down movement of air causes wind.



Air picks up water as it moves over the ocean. The water changes to water vapor as it cools. This forms a cloud. The warm air rises, and the cool air sinks. The cloud moves in a circle. The result is the rolling curved cloud called the Morning Glory.

Sometimes many Morning Glories move across the sky. One follows another and another. They are waves rolling over the sea and land like an ocean in the sky. Riding a Morning Glory is like surfing ocean waves, but the waves are in the sky.

Vocabulary Practice

Fill in the blank with a vocabulary word from the box that best completes each sentence. Use each word only once.

fabulous threatening soars attempt

1. The thunder from the _____ storm shook the little town.
2. The kite _____ across the sky on a windy day.
3. The acrobat will _____ to do a new trick for the crowd.
4. The view of the ocean was _____ .

Choose the best word to answer the question.

1. What is another word you could use for *threatening*? _____
2. What is another word you could use for *attempt*? _____
3. What is another word you could use for *fabulous*? _____
4. What is another word you could use for *soars*? _____

On the lines below, write two or more sentences using as many vocabulary words as possible. Remember your sentences must make sense.

Skin-Feeding Amphibians

The natural world is amazing. Sometimes nature is shocking. Sometimes it even seems cruel. But everything in nature has a purpose. (21)

Animal Parents

Most living things come from other living things just like themselves. Young animals come from adult animals. The adult animals are the parents. Some animals are born live. Other animals hatch from eggs. Some baby animals do not need much care. Other babies need a long period of care as they grow. (73)

Babies need a home. They need to be safe. Most of all, young animals need food. Some animals, such as dogs, get milk from their mothers. Some animals, such as birds, are fed by both parents. In many cases, the young are cared for until they reach a certain age. Humans and other mammals spend many years taking care of their young. (135)

Scientists were astonished to learn about a new animal. This wormlike animal was found in Africa. It feeds its babies in an unusual way. This kind of feeding had not been seen in any animal ever before. (172)



caecilian
(seh-SILL-yen)

Strange Animals

The animals they found are a kind of caecilian (seh-SILL-yen). These creatures do not have arms or legs. They have shiny skin. Their eyes do not work well. Some of them do not even have eyes. Nor do they have ears. They have feelers that help them smell. Some caecilians are as small as 7 inches. They look like worms. Some measure as long as 4.5 feet. Most are about a foot in length. They look like snakes. (249)



Have you ever seen a photograph of a caecilian? Some live in Mexico and South America. Others live in Southeast Asia and Africa. They come in a few colors. They can be pink, tan, yellow, or black. Their skin can make a strong poison. This keeps other animals from eating them. (300)

Caecilians live beneath the ground. They have many sharp teeth and strong jaws. They eat worms, small snakes, and frogs. They swallow their food whole. The babies of the strange African caecilian hatch from eggs. The babies eat a very strange food. They peel their mother's skin off her body and eat it! (353)

Baby Food

The mother African caecilian has many layers of skin. When the mother is going to have babies, it begins to grow thicker skin. Then, when the babies hatch there is plenty of food. The babies' teeth are shaped to eat chunks of flesh. Some of the teeth have sharp points. These stick into the skin and peel it off. Other teeth are shaped like spoons. These teeth scrape skin. (422)

They eat the top layer of their mother's skin. The skin below then becomes the next meal. The skin is healthy food for the babies. This "baby food" has fat and other things the babies need to grow. (460)

Many animals that lay eggs do not care for their young when they hatch. The African caecilian is different. The mother does take good care of her babies. (488)

Not many mothers would let their babies scrape off their skin and eat it! (502)

Words per Minute _____



Adventure Checkpoint

Comprehension Assessment

Read “Skin-Feeding Amphibians” to answer the following questions. Circle the letter of the best answer.

1. Which of these is the best summary of Paragraph 5?
 - A. Caecilians that look like worms are about 7 inches long. Some caecilians grow to be about 4.5 feet long. Most caecilians are about a foot long. They look like snakes.
 - B. Caecilians that have eyes do not see very well. Some of these animals do not have eyes at all. Caecilians do not have ears. However, they do have feelers that help them smell.
 - C. Caecilians are creatures that do not have arms, legs, or ears. Some are only about 7 inches long, and they look like worms. Others grow to be 1 to 4.5 feet long. These look like snakes.
 - D. Caecilians are animals that can be small like worms or large like snakes. They use feelers to smell and have shiny skin, but they do not have arms, legs, or ears. Only some have eyes.
2. What is the main idea of the section “Baby Food”?
 - A. African caecilian babies eat their mother’s skin.
 - B. African caecilian babies have sharp pointed teeth.
 - C. African caecilian mothers have many layers of skin.
 - D. African caecilian mothers take good care of their babies.
3. What is the author’s purpose for writing this passage?
 - A. to entertain readers with a good story
 - B. to inform readers about an interesting and unusual creature
 - C. to create a narrative passage about an unusual creature
 - D. to predict the future of these unusual creatures
4. What is the unstated main idea of the second paragraph on the second page of this passage?
 - A. There are many types of caecilians.
 - B. There are only a few types of caecilians.
 - C. Caecilians are rare and an endangered species.
 - D. Caecilians are only found in two countries.

Vocabulary Assessment

1. Which word means the same as *below*?
A. hatch
B. cruel
C. underneath
D. astonished
2. Which word means to make a terrible mistake?
A. mysterious
B. blunder
C. dangerous
D. extends
3. Which word means “to change”?
A. mysterious
B. soar
C. secure
D. alter
4. Which word means the opposite of *safe*?
A. secure
B. unharmed
C. dangerous
D. harmless

Read the words in the box. Then, rewrite the sentences, replacing the underlined phrase or word with the correct word from the box.

mysterious

attempt

fabulous

alter

5. The students decided they need to try to do their best on the test.

6. She saw no sense in trying to change the length of the pants since they were too small.

7. The mirage was so difficult to explain that he could not tell her what it looked like.

8. The sight of a Morning Glory is amazing.

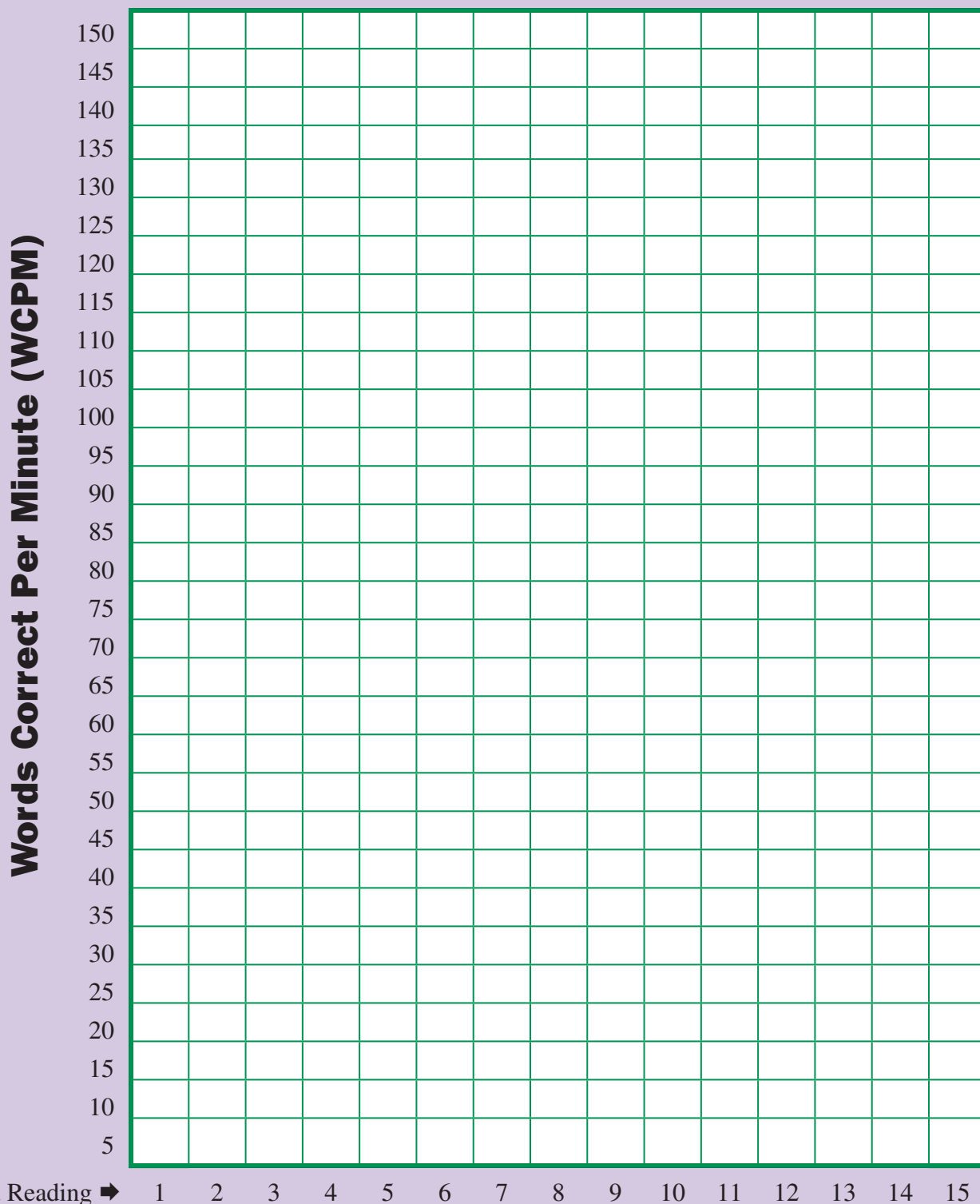
In Response

In your own words, use the facts and details in this passage to write an informative paragraph about the caecilian on a separate sheet of paper.

Timed Reading Log

	Passage Title	Words Per Minute
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Fluency Chart



Timed Reading ➡

F2

Vocabulary Log



► Adventure 7

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



► Adventure 8

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Vocabulary Log



► Adventure 9

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



► Adventure 10

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Vocabulary Log



► Adventure 11

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



► Adventure 12

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Tips for Reading

Narrative Text Features

Characters:	Who the story is about
Plot:	Events, or things that happen in the story
Setting:	Where and when the story takes place

Expository Text Features

Title:	The name of the passage
Subtitle:	The name of a section, or part, of a passage
Image:	A picture that helps show what the text means
Caption:	Text that tells about the image
Special Font:	Text that is set in bold type, italics, or color to point out important information

Time-Order Signal Words

These are words that show when events happen in a passage:

first	second	third
before	after	next
then	finally	last

Fix-Up Strategies

STOP	Stop and ask: Does this make sense? Does this sound right?
REREAD	Reread the part that I don't understand at a slower pace for missed information
LOOK	Look for things I recognize, like signal words, pictures, and headings
THINK	Think out loud about what I read and what I already know
CHECK	Check for understanding by reading again

Supplemental Letter Squares

br

pr

gl

sm

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pl

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cl

sc

st

est

gr

fl

sk

sw

ing

Who?

What?

When?

Where?

Why?

How?

W

Who or **what** is the paragraph or passage mostly about?

I

What is the most **important information**?

N

What is the main idea in a small **number** of words?

C

Context

P

Parts of Words

R

Resources

A B C D E F



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